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ABSTRACT

Components of a project to assess the reasons for the imbalance of women in administrative positions in vocational education were research, synthesization, and evaluation. Phase 1 of the five-phase research study, a literature review, identified internal and external barriers. Mail surveys in phases 2 and 3 identified attitudes, perceptions, and aspiration of Kentucky vocational education teachers toward accepting employment as administrators and of individuals who hire administrators for vocational education. Phase 4, an interview study, identified policies and practices regarding the employment of vocational administrators. Phase 5 consisted of employer evaluations of matched resumes to identify biased attitudes in administrator selection. The obtained data and input from an advisory committee and consultants were utilized to develop realistic strategies and a plan of action to eliminate the imbalance of women in the administration of vocational education in Kentucky. Project results were evaluated in two stages. Evaluation of the research component in stage 1 was performed by a consultant with demonstrated expertise in the areas of attitude assessment and survey research. Evaluation of the synthesization component in stage 2 was performed by a consultant with expertise in administration and sex equity. (Instruments are appended.) (Author/YLB)

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FINAL REPORT

Project No. 49BAH70305
Grant or Contract No. G007702290

A RESEARCH PROJECT TO DETERMINE THE REASONS FOR AN IMBALANCE OF WOMEN IN ADMINISTRATIVE POSITIONS IN VOCATIONAL EDUCATION

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January, 1980

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ABSTRACT

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PROJECT TITLE : A Research Project to Determine the Reasons for an Imbalance of Women in Administrative Positions in Vocational Education

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PROJECT SUMMARY :

This project was designed to assess the reasons for the imbalance of women in administrative positions in vocational education. Five distinct research studies were conducted as follows: (1) To identify internal and external barriers to the employment of women in administrative/leadership positions; (2) To identify attitudes, perceptions, and aspirations of Kentucky vocational education teachers toward accepting employment as administrators in vocational education: (3) To identify the attitudes, perceptions, and aspirations of individuals who hire administrators for vocational education; (4) To identify policies and practices regarding the employment of vocational administrators; and, (5) To identify biased attitudes in administrator selection.

Baseline data obtained through these studies, information from the literature, and input from an advisory committee and consultants were utilized to develop realistic strategies and a plan of action to eliminate the imbalance of women in the administration of vocational education in Kentucky.

Project results were evaluated in two stages. Evaluation of the Research Component in stage one was performed by a consultant with demonstrated expertise in the areas of attitude assessment and survey research. Evaluation of the Synthesization Component in stage two was performed by a consultant with expertise in administration and sex equity.

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INTRODUCTION

A RESEARCH PROJECT TO DETERMINE THE REASONS FOR AN IMBALANCE OF WOMEN IN ADMINISTRATIVE POSITIONS IN VOCATIONAL EDUCATION

By: Carolyn G. Litchfield
Anna Sue Couch
Ann R. Willett

WOMEN AND WORK

- An Educational Issue
- An Economic Issue
- A Social Issue
- A Moral Issue
- A Legal Issue

THE STATUS OF WOMEN AS PROFESSIONAL EDUCATORS

AN OVERVIEW OF THE PROJECT

- The Research Component
- The Synthesization Component
- The Evaluation Component

PROJECT SCHEDULE

SUMMARY

WOMEN AND WORK

The number of women entering the labor force has increased rapidly in recent years. As the proportion of working women has increased, so has the interest exhibited regarding their employment. The status and roles of women in the world of work have become topics of interest to many individuals and groups including educators, labor, and management.

According to employment projections, women will continue to enter the labor force in large numbers. This trend has implications for educators in general and vocational educators in particular. These educators are challenged to provide equal education for equal employment opportunity. In order to meet this challenge, vocational educators have found it necessary to support equal representation of women both in the work force and in leadership positions in vocational education.

Official concern regarding the employment of women was expressed during the 1972 American Vocational Association convention in the form of a resolution which authorized a study of professional employment in vocational education. The resolution noted the lack of empirical data and established three objectives for the study: (1) to identify the proportion of males to females at every professional level; (2) to compare salaries; and (3) to identify restrictions in advancement opportunities because of sex.

The passage of the Education Amendments of 1976 caused vocational educators to intensify efforts toward the elimination of sex bias and sex discrimination in vocational education programs. Equal access and opportunities in vocational education, as well as the elimination of sex bias and sex role stereotyping, have been identified as national priority areas for the field of vocational education research.

If vocational educators are to succeed in providing equal programs of vocational education, they will need to focus attention on the educational, economic, social, moral and legal issues related to the employment of women. These issues have important implications for vocational programs.

An Educational Issue

The participation of women in the work force should be of concern to vocational educators who have a primary responsibility for the preparation of individuals for entry and advancement in the world of work. Because vocational education has reflected the sex-typing of occupations in society, it too has been accused of reinforcing the division of males and females (Trecker, 1974; Saario, Jacklin and Tittle, 1973; Sexton, 1976). This accusation is supported by data from the U. S. Office of Education that reflect student participation in programs (Osso, 1974).

The National Center for Education Statistics funded a comprehensive study of vocational education in the early 1970's. One portion of the study reviewed the status of vocational education for females in the United States and analyzed current conditions and practices in education which have an impact upon women in the world of work. Steele (1974) revealed that female students were clustered in a much narrower range of vocational courses than males. She concluded that few significant changes will occur for women or for vocational education until the number of female administrators is increased at all levels of the school system. Educational personnel, by providing inadequate career counseling and by providing students with powerless female role models (Steele, 1974), perpetuate sexism as they reflect the bias of the society they serve.

"Cinderella Doesn't Live Here Anymore" (Verheyden-Hilliard, 1975) views vocational education as preparing female enrollees for a "Cinderella lifestyle" of cooking, cleaning, and being beautiful and charming. Data support other research (Roby, 1975; Steele, 1974) showing that, although females comprise over half of the enrollment in vocational education, they are concentrated in traditional female areas. Indications were found that some vocational educators are concerned with equity in education, but the literature suggested that federal and state educational agencies must support active, ongoing, massive committed intervention.

Educators have for many years recognized that appropriate role models are important influences in shaping attitudes. One evidence of this is the profession's healthy concern for male role models in the elementary school and corresponding efforts to encourage men to enter elementary teaching. More recently, educators have voiced a similar concern over the lack of adequate female models in leadership roles. The appointment of educational personnel on the basis of restricted sex roles provides few female models in leadership roles. This tends to reinforce existing stereotyped attitudes and thereby limits the career options of both personnel and students. As Colquit (1974) states:

> . . . modeling has important implications for school administrators for enhancing self-concept and raising the aspirations, achievement and motivation level of students. Much social learning occurs through casual or directed observation of performance by real-life models. Both children and adults acquire attitudes, emotional responses, and complex patterns of behavior

> through exposure to models or the observance of the performance of others. (p. 18)

Educators are aware that students learn through observation, but they often overlook the silent but potent message related to students as they observe the absence of women in administrative positions in vocational education. Students also observe the lack of females in positions outside the traditional programs of home economics, health, and business (Roby, 1975). Sex bias and stereotyping, although subtle, reinforce the traditional attitudes that limit the aspirations of females and reinforce in male students the belief that females belong in "women's work" (Howard, 1975).

An Economic Issue

Employment statistics illustrate that women are entering the work world in large numbers. According to Bomboy (1979), nine out of ten women will work outside the home during their lives and will spend more years in the world of work than working women in the past. Many will find it necessary in order to support themselves and their families. The National Commission on Working Women (1979) reports the following patterns of female employment:

> Forty-two percent of the American work force are women; fifty-six percent of adult women hold paid jobs. And, 33 million or about 80% of all employed women are in clerical, service, sales, factory or plant jobs. (p. ii)

Vocational education has great potential for providing assistance to these women.

In recent years, both technological and societal changes have occurred. The changes have caused women to seek employment opportunities, and it is predicted that women will continue to enter the work force in even greater numbers. Bomboy (1979) outlines these changes as follows:

> . . . women are marrying later and having fewer children; the divorce rate is increasing dramatically (one out of three marriages ends in divorce) and more women must support themselves and their children; housekeeping and childbearing have become less burdensome and time consuming; we are living longer and healthier lives. Increased education, the women's movement, and the law are also responsible. Women today are more likely to consider themselves as individuals and to value the independence and sense of personal identity that having a job can bring (p. 29).

In addition, many women in today's world expect to work. They have positive attitudes toward their work.

Why do women work? Factors which motivate men to work are also motivators for women. Economic need has been indicated as a prime reason for working. As Bomboy (1979) states it:

> They work to support themselves and their families. More than two-thirds of all working women are single heads of households or, if married, have husbands earning under $10,000 a year. In many families it is the wife's earnings that keep the family above the poverty line. For middle-class families, a woman's earnings can mean the difference between just getting by and having a comfortable life style. With inflation rates continuing to rise, most families cannot afford for a wife not to work (p. 29).

Although economic need may inspire a women to enter the world of work, economic realities of work may become a source of great frustration for her -- especially when she discovers the earnings gap between men and women. In spite of the Equal Pay Act of 1963, full-time women workers earn 60 cents for every $1.00 earned by men. Over the past 19 years, this earnings gap has increased.

The widening male-female differential is a contrast to the gains women have made in recent years. Differences between the earnings of men and women suggest that women are being paid less for doing the same job. Undoubtedly this is true in some instances, but other factors are also significant. According to the United States Department of Labor (1976) several factors have contributed to this widening gap including the occupational status of women, their educational attainment, and work patterns.

Despite recent changes in the structure of the labor force, and women's increasing attachment to their jobs, historical patterns concerning "men's jobs" and "women's jobs" still persist. Although this pattern has become less rigid in recent years, such sex stereotyping still seems to restrict or discourage women from entering many higher-paying, traditionally male occupations. Women are concentrated in those occupations which are less skilled and in which wages are relatively low. Another factor influencing pay is unionization. Women covered by unions earn substantially higher pay than average employment rates; however, only a limited number of women are union members.

The dynamic rise in women's labor force participation has resulted in a larger proportion of women who are in or near the entry level. Of prime importance when studying the earnings differential is the concentration of women in relatively low-paying occupations and in lower status positions within even the higher paid major occupation groups. Jobs that most women hold are those that have the least prospect for advancement or are most likely to become obsolete in the future.

Although women are as well educated as their male counterparts, there are differences in the kinds of education, training, and counseling they receive. Women are not often encouraged to enter non-traditional fields. Their educational opportunities have directed them into traditional and low-paying jobs. The development of education for women has been closely related to the economy's need for female workers with particular skills and to the economic needs of educational institutions.

In addition to differences in education as an explanation for the earnings differential between men and women, a worker's earnings are also affected by the amount of experience he or she has on the job or, in general, the average number of years a person works during his or her lifetime. Data show that the number of years a woman works has more than tripled in recent years. Although the gap in work-life expectancy between men and women is still wide, it has narrowed considerably. It appears that the work-life expectancy of women will continue to increase.

The discontinuous pattern of the work-lives of many women has adversely affected their earnings potential. Women, upon re-entering the labor market after a period of absence--perhaps devoted to child-bearing and other family responsibilities--often experience difficulty in finding a job, particularly one which is rewarding and which utilizes past training and experience.

In view of the important effect of experience on earnings, one would expect that young men and women with the same educational background in the same occupational field would receive the same beginning salaries. Surveys of starting salaries for men and women graduating from college, however, have for many years revealed rather startling differences in "offers" between men and women. This gap has narrowed appreciably in recent years, but it is still apparent in some fields. It has also been noted that men are able to earn more than women during their educational experience. Women working on a full-time schedule tend to work less overtime than men. Men are almost three times as likely as women to work overtime and obtain overtime pay.

As societal and institutional barriers are broken, more women can be employed at the level their skill warrants and can be afforded wider opportunities to enhance their educational and vocational skills in particular areas for which there is increasing demand. Potentially, vocational educators have a large role to play in this process. They can work with other educators, employment counselors, employers, labor unions, and other individuals and agencies to effectively implement change. As women obtain employment in highly paid professional, technical, managerial, and craft occupations, the earnings differential should narrow. Studies have produced much documented evidence, however, that even after adjusting for some of the aforementioned items and other factors such as age, region, and industrial concentration, much of the male-female earnings differential remains unexplained--representing a maximum measure of discrimination.

Census data point up disparities in administrative salaries for men and women. The average salary for 80,000 male school administrators was $13,625 in 1970. The average salary for 18,000 female administrators was almost $5,000 less. The Census Bureau also noted that 37 percent of the men, but only 16 percent of the women, earned more than $15,000 (Taylor, 1973).

Disparities, in any given assignment between women and their male counterparts in administrative positions, regarding the age at which advancement occurs, years of training, and experience needed to achieve advancement are obvious. Studies have shown that women are more likely to become superintendents in smaller school districts. A recent study indicated that during the 1970-71 school year, in districts serving 300 or fewer students, women held 8.5 percent of the superintendencies, compared to the overall level of 0.6 percent of women superintendents (U. S. Office of Education, Recruitment Leadership and Training Institute 1974).

Each year many jobs in educational administration become available. Yet, since 1928, when women represented 55 percent of all elementary school principals, the number of women in administration has been declining steadily (Lyon & Saario, 1973). The reasons for the decline are hidden in other historical and economic trends. During the depression, many school boards refused to hire women in teaching or administrative positions in an attempt to limit income to heads of households. Employment for women has decreased during times of recession and increased during wars. After World War II, GI Bill subsidies created an influx of men into colleges. Many entered the education curriculum and, subsequently, the public schools. As more men entered the teaching profession, the status of teachers increased. As men gained teaching experience, it soon became the unwritten policy of many school districts to replace retiring female principals with men--to the extent that male principals could be hired from a pool with less years of experience than that held by women capable of moving into administration.

For whatever reasons, promotions of women have not occurred with a frequency proportional to the numbers employed in education. Assuming that the need for representation of women through staffing patterns is valid, the responsibility exists to see that this need is met. Personnel practices that tend to eliminate or limit the promotional potential of qualified women must be altered or eliminated.

In regard to the question of opportunities for the initial employment of women in education, it appears that initial opportunity has not been a problem. Women constitute an ample proportion of the work force in education. The primary problem appears to be their promotion to positions higher than the initial entry level (U.S. Office of Education, Recruitment, Leadership and Training Institute, 1974).

A Social Issue

Unless it can be verified that men make better administrators, the lack of women administrators represents a tremendous waste of human potential. Couch (1978) found no research which shows that men are inherently superior to women in administrative talent and ability, and no research which shows that men demonstrate superior performance as administrators. Several studies indicate that males in elementary education tend to be inferior to women in the areas of qualifications relevant to the task of providing instructional leadership for the school, in knowledge of teaching methods and techniques, in level of concern for objectives of teaching and pupil participation, in the evaluation of learning, and in verbal fluency and number facility (Hemphill, Griffiths, and Fredericksen, 1962).

The potential of women as administrators is largely unexplored, but research evidence indicates that the few women who have attended administrative positions do indeed make good administrators. A University of Florida Kellogg leadership study team, composed almost entirely of men, attempted to identify and clarify good and poor administrative behavior. The team concluded that women were more democratic than men and outscored them in the use of effective administrative practices (Grobman and Hines, 1956). A study by Hemphill, et. al. (1962) showed at least equivalent capabilities for administering schools among women and men, and in a few instances women were superior to men. While these studies do not indicate that a woman should always be preferred to a man, they do indicate that women offer an extremely large talent pool that is equal to or superior to the male pool. This is the case particularly if the administrative position is conceived in a manner that values instructional leadership or supervision of instruction as the major function of the position. Therefore, the decline in the number of women in administration in recent decades can be viewed as a serious factor that has negative effects on the potential quality of educational organizations.

A Moral Issue

Another important reason for insuring that staffs include equal representation is the need to utilize fully the many competencies that are available in our society. The educational demands now faced by educational institutions as they attempt to provide effective educational programs for all students are tremendous and even overwhelming. These demands mandate the full use of all available competencies. We have a moral responsibility to use the pool of talent available in female educators in order to meet the current demands of education; we also have a moral responsibility to stop discrimination against capable women in education and employment.

The tasks confronting educational organizations vary. In some organizations, the need is to provide greater opportunities for initial employment of women, as well as for their promotion. In other organizations the problem may be only the promotion factor. Still other organizations may face problems of reassignment. An assessment of individual organizations should be made. The goal obviously should be to have appropriate representation of women at all levels of the organization. A review of employment policies and practices is in order if this representation does not exist.

A Legal Issue

It is a matter of law and public policy that women be equally represented in educational leadership roles. A number of major federal laws mandate equality for women in education and employment. These include the Equal Pay Act of 1963, the Civil Rights Act of 1964, the Equal Employment Opportunity Act of 1972, the Education Amendments of 1972, and the Education Amendments of 1976.

The Equal Pay Act of 1963 is an amendment to the Fair Labor Standards Act. It prohibits sex discrimination in the payment of wages for equal work and authorizes the recovery of back wages. In 1972, coverage under the Equal Pay Act was extended to executive, administrative, and professional personnel and now includes all employees of public and private educational institutions.

Title VII of the Civil Rights Act of 1964 prohibits discrimination in employment on the basis of sex as well as race, color, religion, or national origin. This law applies to all employers with 15 or more employees and includes hiring, training, promotions, salaries, fringe benefits and other conditions of employment. It is administered by the Equal Employment Opportunity Commission which has the authority to investigate charges, to mediate complaints, and to recommend legal action.

The Equal Employment Opportunity Act of 1972, an amendment to the Civil Rights Act, extended coverage to both public and private educational institutions and to local and state governments. It also gave the Equal Employment Opportunity Commission the additional power to initiate law suits.

Discrimination based on sex is also prohibited by Title IX of the Education Amendments of 1972 which stipulates that:

> no person . . . shall, on the basis of sex, be denied participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving federal financial assistance. A recipient shall not discriminate on the basis of sex in the recruitment and hiring of employees. Where a recipient has been found to be presently discriminating on the basis of sex in the recruitment and hiring of employees or has been found to have in the past discriminated, the recipient shall recruit members of the sex so discriminated against so as to overcome the effects of such past or present discrimination.

In the Education Amendments of 1976, Congress mandated the elimination of sex bias and sex discrimination in vocational education at all levels, including the hiring and promotion of personnel. States are specifically required to gather, analyze, and disseminate data on the status of men and women--both students and employees--and to monitor the implementation of laws prohibiting sex discrimination in all hiring, firing, and promotion procedures.

In addition, Executive Order 11375, issued by President Nixon in 1971, required that all government agencies and contractors take positive action to significantly increase the number of women in top and mid-management positions. The subsequent "Sex Discrimination Guidelines," issued by the Department of Labor, required goals and timetables for increasing the number of women in job categories in which they are under-represented.

Other federal legislation, e.g., the Age Discrimination Act of 1967 and the Public Health Service Act of 1971, prohibit discrimination against women in specific categories. These and other actions by the federal government represent a continuing commitment to eliminate sex-based discrimination and to provide equal employment opportunities for women.

Some state legislatures have enacted state antidiscrimination statutes. These state laws are typically identified as fair employment practice laws. While the state laws cannot abrogate federal law, they often extend federal provisions and add prohibitions. Most state laws establish commissions for enforcement at the state level. An emerging trend is the passage of state legislation specifically requiring affirmative action in educational institutions and agencies.

In 1972, the Kentucky General Assembly amended the State Civil Rights Act to prohibit discrimination in employment practices on the basis of sex. The Kentucky Commission on Human Rights has responsibility for implementing state and federal guidelines and for investigating complaints.

There is no question that women should have equal opportunities for employment and promotion in the eyes of the law. The major question is whether policies, procedures and practices are resulting in equal opportunities for women.

THE STATUS OF WOMEN AS PROFESSIONAL EDUCATORS

Education is a particularly appropriate field in which to raise questions regarding the status of women and particularly the status of women in administrative/leadership positions. Why, in a profession where women predominate at the entry level, do men dominate those positions where policies and decisions are made? Why, in a field that has traditionally been classified as "women's work," do men enjoy greater power, status, and monetary rewards? Why, in a discipline that boasts equal educational opportunity for all, is there an apparent differential pattern of promotion and advancement which implies unequal opportunity for its own personnel? Why, despite increasing public emphasis on equal employment opportunities for women, has the proportion of women in educational leadership roles actually declined in recent years?

Women constitute a majority of public school teachers; however, they are under-represented in virtually every area of public school administration. The information in Table 1 documents the extent of male dominance in public school administrative positions and illustrates that at some levels women are almost entirely excluded.

The most striking imbalance is in administration at the elementary level--a traditionally female area. A National Education Association survey (1973) revealed that men comprise only 12 percent of the elementary teaching force, but account for 79 percent of the elementary principalships. The survey also showed a sharp decline in the proportion of women elementary principals, from 37 percent in 1960 to 22 percent in 1970.

An earlier series of studies by the National Education Association (1968) showed a steady decline in the number of female elementary principals over a 40-year period from a majority of 55 percent in 1928 to 22.4 percent in 1968. These sex-ratio differences are particilarly significant when one considers that the pool from which elementary principals are usually drawn consists primarily of female elementary teachers.

The reasons for the continuing decrease in the number of female elementary principals is unclear. Johnson (1971) attributes the decline to the combined effects of a strong effort to attract men to elementary teaching and the traditional emphasis on, and opportunity for, more rapid promotion for men. Johnson also suggests that many retiring

TABLE 1

WOMEN IN LEADERSHIP POSITIONS IN PUBLIC SCHOOLS

Position	Number of Individuals	Number of Women	Percent Women
Principals			
Elementary	47,714	10,041	21.0
Junior High	8,782	310	3.5
Senior High	13,763	414	3.0
Total	70,259	10,765	Percent 15.0
Assistant Principals			
Elementary	5,119	1,731	34.0
Junior High	6,777	755	11.0
Senior High	11,403	1,020	9.0
Total	23,299	3,506	Percent 15.0
Central Office Administrators			
Superintendents	14,379	90	.6
Deputy & Associate Superintendents	731	55	7.5
Assistant Superintendent	4,402	126	3.0
Total	19,512	271	Percent 1.4
Other Central Office Administrators	45,794	16,644	36.0
Total	65,306	16,915	Percent 26.0
Chief State School Officers	50	2	4.0
Total			
Classroom Teachers	2,034,581	1,366,830	67.0
Professional Personnel	2,302,212	1,471,350	64.0
Administrative Personnel	158,864	31,186	19.6

Source: Jacqueline C. Clement, Sex Bias in School Leadership (Evanston, Illinois: Integrated Education Associates, 1975), p. 37.

female elementary principals are being replaced by young men, some with limited experience in elementary teaching.

Research evidence lends some support to this view. Gross and Trask (1976) found that 34 percent of the male elementary principals had no elementary teaching experience, compared to only 3 percent of the women. The mean years of elementary teaching experience for women principals was 14.7 compared to 4.6 years for men. Similar findings were reported in the 1968 study conducted by the Department of Elementary School Principals of the National Education Association.

Cirincone-Coles (1975) reported patterns of employment in higher education and in government. In college and university departments of educational administration, 98 percent of the faculty members were reported to be male. Males also represented 84 percent of the administrators in higher education. In the United States Office of Education, only 3 women were reported among the 48 persons holding Grade 16 or 17 positions; no women were reported in Grade 18 positions. The average grade reported for females was GS 7 and for males it was GS 14.

It should be noted that the pervasiveness of male dominance extends to groups which both influence and/or make educational policies. These include the federal government, legislatures, boards of education, teacher's associations, research organizations, and professional education associations.

The imbalance of women in leadership positions related to vocational education is similar to that found in other areas of education. In fact, sex stereotyping and sex discrimination in vocational education were identified as critical national problems during hearings of the

Subcommittee on Elementary, Secondary, and Vocational Education of the House Committee on Education and Labor (1975). Individuals testifying indicated that sex stereotyping in vocational education was reinforced and perpetuated through restrictive enrollment practices and staffing patterns and through biased attitudes of personnel. They also cited statistical data regarding vocational education as outlined in Table 2.

TABLE 2

WOMEN IN LEADERSHIP POSITIONS IN VOCATIONAL EDUCATION AT THE NATIONAL LEVEL

Position	Number of Individuals	Number of Women	Percent Women
State Directors of Vocational Education	50	0	0
Chairpersons of State Advisory Councils	50	6	12
Executive Directors of State Advisory Councils	50	2	4
Members, State Advisory Councils	1,180	162	14
Members, National Advisory Council	22	4	18

Source: U. S. Congress, Hearings before the House Subcommittee on Elementary, Secondary and Vocational Education, Committee on Education and Labor, Sex Discrimination and Sex Stereotyping in Vocational Education, 94th Congress (Washington, D.C.: GPO, 1975), p. 22.

During 1973-74, there were no females serving as state directors of vocational education. Women constituted 14 percent of the total membership (1,180) of state advisory councils for vocational education. Six (12 percent) of the chairpersons of these councils were women; however, only two (4 percent) of the executive directors of the councils were women.

The higher the educational level, the fewer women both in the classroom and in the administration of vocational programs. Fifty-four percent of the undergraduates in the areas related to vocational education were women. Only 30 percent of the doctorates in the area of vocational and technical education were awarded to women, and these degrees were largely in the areas of home economics, nursing education, and health occupations.

The Education Professions Development Program for leadership development in vocational education had a 39 percent female enrollment. Until 1973, there were no women serving as project directors, and women represented only 16 percent of the advisory committee membership. Thus, it appears that leadership in vocational and technical education is a male-dominated profession.

Data collected regarding vocational education in Kentucky depict the same dearth of women in leadership positions in the Commonwealth as in the nation as a whole (see Table 3). Recent patterns of employment in vocational education in Kentucky illustrate that women are concentrated in the lower levels of the employment hierarchy. Many of the women in administrative positions in vocational education are concentrated in traditionally female areas such as home economics, nursing, and business education.

According to information presented in Kentucky Vocational Education Directory (1977-78), there is a critical imbalance of women occupying top-level leadership positions in vocational education in Kentucky. Women represented 33 percent of the employees in the State Department of Education's Bureau of Vocational Education; but, only 16 percent of the individuals employed in positions as directors or higher were women.

TABLE 3

WOMEN IN LEADERSHIP POSITIONS IN VOCATIONAL EDUCATION IN KENTUCKY

Position	Number of Individuals	Number of Women	Percent Women
Bureau of Vocational Education			
Directors or Above	31	5	16
Assistant Directors	4	1	25
Coordinators	23	7	30
Supervisors	32	12	38
Vocational Regions			
Directors	14	1	7
Coordinators	52	5	9.6
State Vocational-Technical Schools			
Principals	14	0	0
Area Vocational Education Centers			
Coordinators	61	5	8
Directors	6	0	0
Principals	1	0	0
Vocational Administrators at Local District Level	11	1	9
Universities			
Chair, Vocational Education Dept.	8	0	0
State Advisory Council Members	27	6	22
Regional Advisory Council Members	320	38	12
Members, State Board for Occupational Education	7	1	14

Source: Bureau of Vocational Education, Kentucky Vocational Education Directory 1977-78 (Frankfort: Kentucky Department of Education, 1978).

Women represented 54 percent of the vocational education teachers. Yet, few women were represented in regional or local program administration. Only 7 percent of the regional directors were women and less than 10 percent of the regional coordinators were women. No women served as principals of state vocational technical schools. No women served as principals or directors of area vocational centers and women represented only 8 percent of the coordinators. At the local level, women represented 9 percent of the administrators. Forty percent of the teacher educators in departments of vocational education were women, but there were no women chairing vocational departments in institutions of higher education in Kentucky.

Women represented only 14 percent of the membership on the State Board for Occupational Education and 12 percent of the Regional Vocational Education Advisory Committee membership. They represented 22 percent of the membership on the State Advisory Council for Vocational Education.

Females are not adequately represented in the administration of vocational programs or in the policy decisions pertaining to vocational education in Kentucky. Facts regarding this under-representation helped establish the need to determine the reasons for an imbalance of women in administrative positions in vocational education in Kentucky. Based on these findings, "A Research Project to Determine the Reasons for an Imbalance of Women in Administrative Positions in Vocational Education" was designed to: (1) identify reasons for the imbalance of women in administrative positions in vocational education in Kentucky; and (2) develop strategies designed to correct the imbalance of women in administrative positions in vocational education.

AN OVERVIEW OF THE PROJECT

This study, entitled: "A Research Project to Determine the Reasons for an Imbalance of Women in Administrative Positions in Vocational Education" contains three distinct components. These components include: (1) Research; (2) Synthesization; and, (3) Evaluation.

The Research Component

The research component included five distinct phases. Each phase was designed to address a specific research objective or question as follows:

Phase I:	What is the body of knowledge regarding the internal and external barriers to the employment of women in administrative/leadership positions?
Phase II:	What are the attitudes, perceptions and aspirations of Kentucky vocational education teachers toward accepting employment as administrators in vocational education?
Phase III:	What are the attitudes, perceptions, and aspirations of individuals who hire administrators for vocational education?
Phase IV:	What are the policies and practices of employers who hire individuals for administrative positions in vocational education in Kentucky regarding the employment of women for the administrative positions?
Phase V:	Do employers express biased attitudes toward women in regard to: educational background? employment experience? professional activities? written recommendations? leadership potential? interpersonal skills? career commitment?

The Synthesization Component

Once the research studies were conducted, data were analyzed for information regarding the reasons for an imbalance of women in administrative positions in vocational education. This information, along with information from the literature plus input from a ten-member advisory committee and consultants, was utilized to develop realistic strategies and a plan of action to eliminate the imbalance of women in the administration of vocational education in Kentucky.

The Evaluation Component

Results of the project were evaluated in two stages. Stage one was evaluation of the Research Component and stage two was evaluation of the Synthesization Component. The evaluation of the Research Component in stage one was performed by a consultant with demonstrated expertise in the areas of attitude assessment and survey research. The basic questions to be answered in this first evaluation included:

1. How valid are the research findings?
2. How reliable?
3. Were the investigators able to execute the research in the proposed manner?
4. Where and why did they have to change the original plan?

The evaluation of the Synthesization Component in stage two was performed by a consultant with expertise in administration and sex equity. The questions answered here included the following:

1. Have the barriers to equal opportunity for women in the administration of vocational education programs been identified?

2. Do the strategies suggested for overcoming sex bias relate meaningfully to the identified barriers?
3. What possible aspects of sex bias have been overlooked in this project?
4. What suggestions can be made to further the implementation of the proposed plan?

In order to promote objectivity, the evaluation stages were conducted by consultants from outside the University of Kentucky system.

PROJECT SCHEDULE

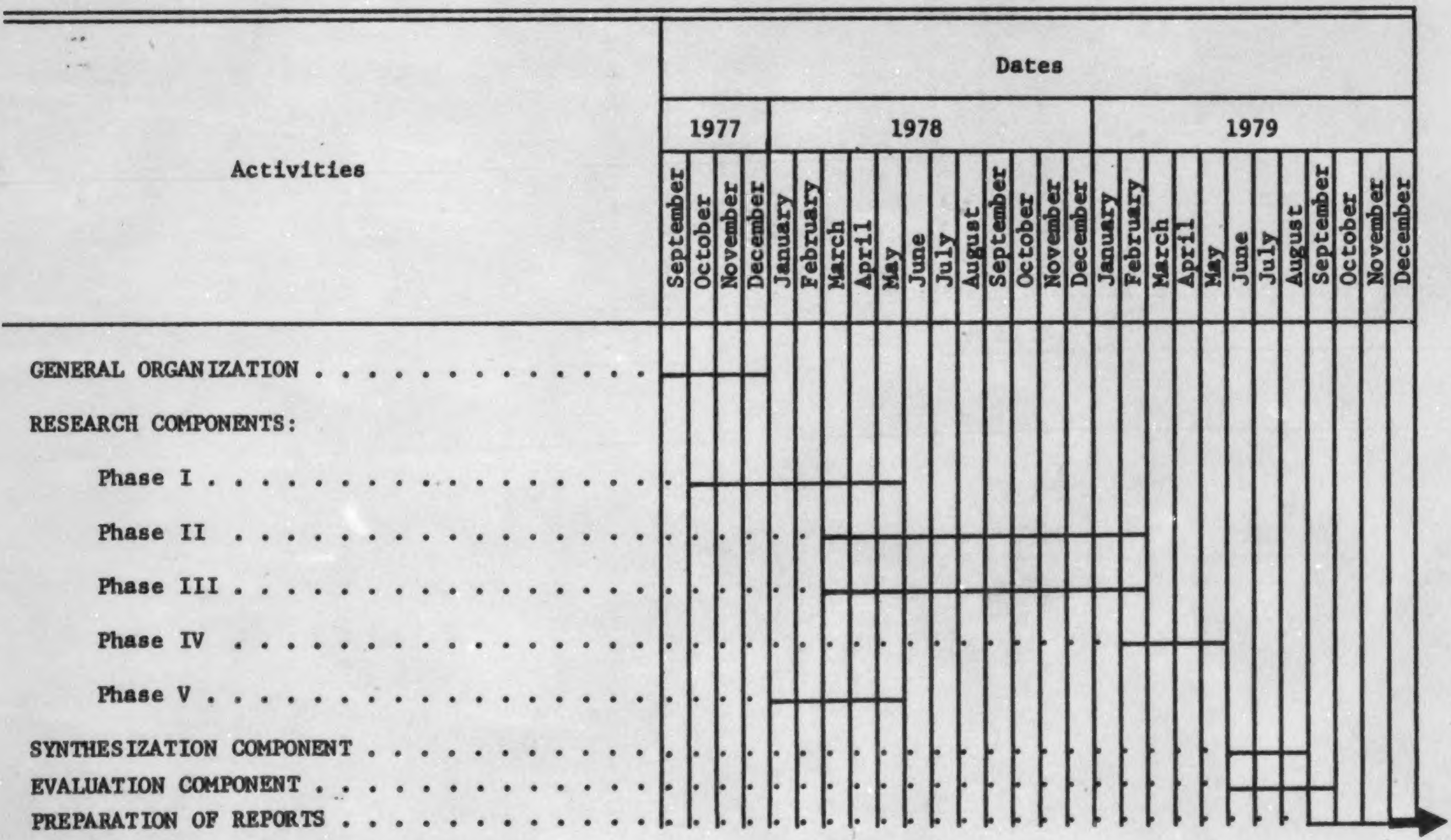
The project was completed according to the schedule presented in Figure 1. Upon completion of the general organizational activities and selection of the advisory committee, the Research Component was initiated.

The Research Component contained five distinct phases. Phase I consisted of a literature review, and it served as a basis for all other phases. Phases II and III consisted of mail surveys. They were conducted simultaneously. Upon completion of these studies, Phase IV, an interview study, was initiated. Phase V consisted of employer evaluation of matched resumes. This phase was conducted prior to the completion of Phases II through IV.

Results of the Research Component were utilized as a basis for the Synthesization Component. The Evaluation Component followed. Reports were prepared at quarterly intervals throughout the duration of the project. A final report and a final summary of the project were prepared upon completion of all components.

FIGURE 1

SCHEDULE OF PROJECT ACTIVITIES



SUMMARY

In summary, it is clear that the perpetuation of sex bias in the employment of administrators in vocational education serves neither the profession nor the public welfare. It prevents many women educators from realizing maximum fulfillment of their individual potential and deprives the profession of a significant source of talented leadership. It is both a moral and legal violation and is inconsistent with stated public policy. More importantly, it is at the expense of those whom the system is designed to serve--students.

The challenge which faces vocational education today, including the public demand for accountability, requires the full utilization of the talents and expertise of all personnel, at the administrative level as well as in the classroom. Facts clearly demonstrate that women are under-represented in vocational education administration and that such under-representation should give the education community cause for concern.

By virtue of federal legislation and public policy, vocational educators have responsibility for the elimination of sex discrimination and sex stereotyping in employment and promotion procedures. Information obtained through "A Research Project to Determine the Reasons for an Imbalance of Women in Administrative Positions in Vocational Education in Kentucky" may be one step toward the achievement of this goal.

THE RESEARCH COMPONENT

PHASE I: BARRIERS TO THE EMPLOYMENT OF WOMEN IN ADMINISTRATIVE/LEADERSHIP POSITIONS

By: Carolyn G. Litchfield
Anna Sue Couch
Ann R. Willett
Patricia Wilson

INTRODUCTION

THE EXTERNAL BARRIERS

- The Socialization Process and Sex-Role Stereotyping
- Attitudes Regarding Female Career Commitment
- Myths Regarding the Employment of Women
- Attitudes Regarding Female Competence
- Attitudes Regarding Women in Leadership Positions
- Absence of Female Role Models
- The Professional Socialization Process
- Educational Barriers
- Employment Practices

INTERNAL BARRIERS

- Role Conflict
- Self-Esteem
- Achievement Motivation
- Fear of Failure
- The Motive to Avoid Success

SUMMARY

INTRODUCTION

In recent years a great deal of concern has been shown regarding the roles of women in American society, particularly their work role. Legislative efforts have focused on providing equal opportunity for employment. The impact of these efforts is visible; however, there is still progress to be made toward providing equality in the world of work. Women are concentrated at the bottom of the employment hierarchy, and only a few of them reach the top. Generally, women are found in areas which offer little prestige or substantial economic return.

In order to overcome this problem and to meet the challenge of providing equal education for employment, steps must be taken to identify and overcome the barriers to the employment of women in administrative/leadership positions. There are a number of individual barriers to the employment of women in such positions. These individual barriers may be classified into two basic categories: (1) external barriers, and (2) internal barriers. Research regarding such barriers is reviewed herein.

THE EXTERNAL BARRIERS

External barriers refer to factors such as the socialization process and sex-role stereotyping, attitudes regarding female career commitment, myths regarding the employment of women, attitudes regarding female competence, attitudes regarding women in leadership positions, absence of female role models, the professional socialization process, educational barriers, and employment practices. These factors are external to the woman; however, they often create barriers to her employment. They result from attitudes and values inherent in our culture.

The Socialization Process and Sex-Role Stereotyping

The socialization process in our culture instills in children gender identity and prepares them for adult roles. The socialization process produces adults suitably shaped to fit easily into the roles a society has defined for them (Bernard, 1976; Saario, et. al., 1973). Evidence of the existence of sex-role conditioning is present in the literature (Rubin, Provenzano, and Luria, 1974; Block, 1973; and Howe, 1971). The content of sex-role stereotypes comes from the past, or tradition, rather than from response to current situations. Sex-roles attribute to men and women fixed and relatively unchanging traits (Forisha, 1978). Sex-role stereotyping is defined as highly consensual norms and beliefs regarding the different characteristics of men and women (Broverman, Broverman, Clarkson, Rosencratz, and Vogel, 1970; DeKarabetian and Smith, 1977). Howe (1971) states:

> Sexual stereotypes are assumed differences, social conventions or norms, learned behavior, attitudes and expectations. Most stereotypes are well-known to all of us, for they are simple--not to say simple minded (p. 77).

Studies show that attributes and abilities of males and females are viewed differently in our society. These studies further show that females as well as males tend to accept these beliefs about sex differences. In 1970, researchers (Broverman, et. al.) found that clinical psychologists' concepts of a healthy adult was almost identical to that of a healthy male, but different from that of a mature healthy woman. Garman and Plant (1974) found that educators are less likely to attribute characteristics which describe mature adults to a woman than they are likely to attribute these characteristics to a man.

Through a study of sex-role perceptions of vocational educators, Dittman (1976) found that these educators perceive male and female roles in a stereotypical manner. It is believed that such attitudes: (1) influence the manner in which vocational educators view the options of students and, (2) restrict students in the exploration of personal and vocational goals. Hantjis (1977) studied the attitudes, knowledge, and behavior of selected members of the American Vocational Association regarding sex-role stereotyping in vocational education. She found differences in attitudes based on sex of member, divisional membership association, and geographic region of the member. Females had greater knowledge of sex-role stereotyping in vocational education and significantly more liberal attitudes than males. The females also reported more liberal behavior intent than males. Differences were found in knowledge, attitudes, and behavior intent of groups associated with the traditionally male and female divisions. The administration division was less liberal and knowledgeable regarding sex-role stereotyping than were other divisions. In addition, vocational educators residing in the South were reported to be less liberal and knowledgeable regarding sex-role stereotyping than colleagues in other geographical areas.

Rosenkrantz, Vogel, Bee, Broverman, and Broverman (1968) found sex-role differences to be considered desirable by college students and that these sex-role definitions are incorporated into the self-concept of both men and women. In later research, Broverman, Vogel, Broverman, Carlson, and Rosenkrantz (1972) identified a "competency" cluster representative of male-valued attributes--independent, competitive, logical, skilled in business, and ambitious. These male-valued attributes were absent in the stereotypic characteristics of women. Female-valued attributes formed a "warmth-expressiveness" cluster including attributes such as sensitive, neat, tactful, quiet, and gentle. As these sex-role stereotypes appear to be accepted by many in society, a woman who behaves as a healthy adult may be characterized as unfeminine, yet if she portrays the accepted feminine sex role, she may not fit the accepted standards for adult behavior.

In discussing their views concerning sex-role conditioning, Bem and Bem (1970) indicate that there is an unconscious ideology regarding the nature of the female sex which exists in addition to overt discrimination against women in the labor force. Ideologies are a powerful system of beliefs that are transmitted implicitly rather than explicitly and that guide behavior silently without conscious awareness. For women this ideology is based on the concept of what kind of behavior is appropriate to her role as a female (Lipman-Blumen, 1972).

Covert discrimination, stemming from the way in which people have been socialized to think about women, exists as a powerful force against women in the labor force. As previously noted, this ideology may be unconscious. The socialization process instills in children at an early age that roles are different for boys and girls and provides the appropriate support to insure that boys and girls fit easily into the role as defined for them in society. Perhaps unintentionally or unconsciously, adults respond differently to infant boys and girls. A pink-clad infant is not handled the same as the one dressed in blue. Traditionally, the pink-clad infant could be assumed to be a girl, who, after years of being socialized appropriately as a female, is molded into an adult who is a "passive, dependent, submissive, non-creative female, fit primarily for subservient and inferior roles in our society" (Bernard, 1976, p. 14). "Not only do girls grow up receiving messages about their appropriate behavior, but boys also grow up thinking of girls as fitting these stereotyped patterns" (Prather, 1971, p. 177).

Block (1973) in a cross-cultural and longitudinal study described the development of sexual identity as influenced by the socialization process. She found that the socialization process has different effects on male and female personality development:

> For males, socialization tends to enhance experiential options and to encourage more androgynous sex-role definition . . . For women, the socialization process tends to reinforce the nuturant, docile, submissive, and conservative aspects of the traditionally defined female role and discourages personal qualities conventionally defined as masculine: self-assertiveness, achievement orientation, and independence (p. 525).

Sex-role stereotyping may not be good for males or females, but it appears to be more detrimental to females in that the role and characteristics assigned to them are less positive and more undesirable than characteristics assigned to males (Levy & Stacey, 1974). Sex-role stereotyping appears to restrict the alternatives of actions and expression available to females and expands the options available to males (Block, 1973).

Obvious examples of stereotyping in our society may be found in popular literature, magazines, television, newspapers, advertising, children's toys, children's literature, games and competition, and popular movies. In addition, other examples may be found in our schools. These institutions reflect societal values. Consciously or unconsciously, individuals within our educational institutions transmit stereotypical sex-role behaviors to students. Schools may spread sexism through textbooks and instructional materials, teacher behavior, counseling, and lack of adequate role models.

A number of studies have been conducted regarding the image of women in textbooks and instructional materials (Jay, 1977; Pottker, 1977; Trecker, 1977; Zimet, 1972; and, Weitzban, et. al., 1970). Common findings reveal that women are under-represented as main characters in stories and illustrations and are labeled with negative terms and images. Grambs (1972) moved beyond the content analysis of texts to point out the basic construction of language as it implies male dominance. Terms such as "workman" and "manpower" without regard for working women imply a value hierarchy. The very structure of language defines a source of sex-role stereotyping.

Teacher behavior is an important dimension in the educational process as documented by Rosenthal and Jacobson (1968). Teachers have subtle influences on students as they pit one sex group against the other in competitive activities, delegate classroom tasks, and reprimand or reward behavior.

Pietrofesa and Schlossberg (1977) found that although counselors purport to treat girls' and boys' vocational aims equally, in practice they do not. This finding has been documented through a number of studies. Counselors have different behavior expectations for males and females (Broverman, et. al., 1972). They react differently to career choices of females and males (Schlossberg and Pietrofisa, 1973; Thomas and Stewart, 1971). They utilize test information differently depending on the sex of the client (Friedersdorf, 1969). They are not well informed about women and work (Bingham and House, 1973). Counselors must assess their own attitudes, knowledge, and techniques to avoid setting up barriers for women who are at a developmental stage where they are considering new and often nontraditional options. Counselors need to help clients identify the barriers which exist in the world of work and assess means for coping with these barriers.

The need for balancing the assignment of males and females in the school setting has become mandate. Males need to be encouraged to move into classroom positions, particularly at the preschool and elementary levels. Females need to be recruited, trained, and moved into administration. When equality is demonstrated within the experience of children, it will be a reality of education.

Several writers (Bem and Bem, 1970; Loring and Otto, 1976; Naffziger and Naffziger, 1974; Prather, 1971) support the elimination of sex-role stereotyping. These attitudes have led to biased ideology regarding the commitment and competence of women in the world of work. The elimination of sex-role stereotyping should lead to the opportunity for males and females to do as they choose without having to meet society's standards of what is feminine and what is masculine.

Attitudes Regarding Female Career Commitment

One generalized sex-role stereotype in our culture has established the idea that females are not committed to their work. According to a report by the National Council of Administrative Women in Education (1973), the most prevalent attitudes regarding women and society concerned ideas that woman's place is in the home; women have to stop work to have babies; women can't be counted on to stay on the job; and women don't want demanding jobs. In addition, women were thought to lack experience and mobility. According to Rosen and Jerdee (1974), managers often make personnel decisions and evaluations on the basis of the traditional stereotypical attitudes. As a result, women workers do not receive the organizational support for advancement that their male counterparts enjoy. These thoughts were also substantiated by Schein (1972).

Astin (1967) found that the continuity of a woman's career is related to her educational attainment. The higher the level of education, the more likely a woman is to continue to work after marriage. A large majority (91 percent) of women doctorates were employed 10 years after receiving the doctorate; 79 percent had had no career interruptions. The average female will have a work-life expectancy of twenty-five years, and this work-life expectancy is increasing.

The November 1974 issue of the American Vocational Journal focused on "professional opportunities for women in vocational education." In this issue, lack of acceptance of women by some male faculty and administrators, women's refusal to compete for top jobs, and doubts of full commitment to a career for women were identified as barriers to the employment of women in the administration of vocational education.

Myths Regarding the Employment of Women

A series of myths exist regarding women and the world of work. These myths are based on half-truths, insufficient information, preconceived ideas, and/or unsupported notions. According to Rogalin and Pell (1975), they have been strengthened through constant repetition. These myths stem from attitudes toward female career commitment. They are presented in order to illustrate the attitudes that women have had to overcome in the world of work. Facts are also presented that may help counteract these myths.

Myth: Absenteeism. It is said that women absent themselves from work more often than men. The claim is that women are more likely to become ill and to be absent; they are more accident prone; they take more time off to attend to sick families and other relatives; and they often take days off as a whim.

Statistical data indicate that men and women have about the same rate of absence from work due to illness or injury. No figures were available on time lost over the care of families; however, women are capable of arranging for adequate child care. In addition, many women return to work after their children are older, and a large number of women do not have children.

Myth: Women are taking jobs away from the family breadwinner. This myth is based on the concept that men are the sole breadwinners in all homes. U. S. Department of Labor (1976) statistics illustrate that 60 percent of the women who work are either single, separated, divorced, have others dependent on them, or have a husband who earns a very minimal salary.

Myth: Women abandon their careers for marriage and motherhood. The extent to which women abandon their careers for marriage and motherhood has not been adequately documented, but a report by Cohen (1967) illustrates that while women do leave jobs for marriage, pregnancy and child-rearing, men actually change jobs more often. Grambs (1976) suggested that female mobility--from career to home and back to career--is viewed negatively in terms of career commitment; while male mobility--from one job to another--is viewed positively. It is not uncommon for individuals to move to another job when their employment loses its challenge or when there is the opportunity for advancement. Men have moved with increasing frequency from job to job seeking advancement and job satisfaction. As a matter of fact, women who have made it into administration have been found to be much more loyal as employees than their male counterparts.

There are a variety of work patterns for women. They include interrupted patterns, delayed entry into the official work force, experiences in the unofficial work force, unpaid assistance with family firms, and the traditional paid work pattern males usually possess. The development of leadership skills for women often takes place in situations which are different from those developed on the job through paid work experiences. Unpaid work (such as homemaking) and volunteer work in the community provide opportunities for skill development in competencies which are necessary for employment in educational administration.

Myth: Women work only for "pin money." This myth is based on the idea that men support women economically and that all women are married. It makes an assumption that the husband's income will provide for economic necessities. This is not true.

In a nationwide study, Crowley, Levitin, and Quinn (1973) found no support for the commonly held views that women work only for pin money or that they work only when it is an economic necessity. The researchers also discovered that women are just as concerned with self-actualization in their work as men. Women find unchallenging jobs just as disagreeable as males do, and they are equally interested in being promoted and obtaining career advancement. The researchers found that approximately two of every five working women were economically independent of men. One-third of the women were sole wage earners in their households, and an additional 8 percent reported that they earned the bulk of the family income.

The Conference Board (1973) states that about one of every four employed married women earn more than 40 percent of the family's total resources. Women are serious wage earners. Their jobs are important to them and they need to work in order to maintain their standard of living.

Myth: Women would not work if economic reasons did not force them into the labor market. This contradicts the "pin money" myth. All people work for economic reasons. Studies have also shown that both men and women are often motivated to work for other reasons. In the Crowley, et. al. study (1973), single women said they would continue to work even if they had no economic need to do so. Approximately half of the married women stated that they would continue to work under these conditions. This indicates that women will continue to work as challenging positions become available to them.

Myth: Individuals do not like to work for a woman. Some individuals have indicated that they do not like to work for a woman. However, it may be that these individuals do not like to work for a particular woman. The Women's Bureau of the U. S. Department of Labor noted that most of the individuals who complain about working for women have not yet experienced working for a woman. Those who have worked with women indicate that the personality of the individual, not the sex of the individual, determines how well employees relate to administrators.

Myth: Women fall apart in a crisis. Both men and women can fall apart in a crisis situation. Since women have been socialized to show their feelings, it looks as if they are less stable.

Myth: Women are more concerned than men with the social aspects of their jobs. The social aspects of a job are important. Persons who relate well to each other form a team that can get work done and accomplish the objectives of an organization effectively. However, this statement has been interpreted to mean that women spend more of their time than do men in making friends and socializing on the job than performing their work. There is no support for this generalization.

Myth: Women are more concerned than men with working conditions. All workers value good working hours, ease of travel to and from work, pleasant job surroundings, and other working conditions. These conditions often help compensate for lack of challenging jobs. Today, all workers are concerned with the quality of life. Therefore, both men and women look for good working conditions.

Myth: Women are less concerned than men that their work be self-actualizing. According to this myth, women are content to take less demanding jobs and obtain their self-actualization from sources outside the job: marriage, children, volunteer work, and/or other activities. The educated woman of today seeks self-actualization from a number of sources: home, career, and other activities. She wants the options open. In many instances, her self-actualization comes from her career.

Myth: Women are more content than men with intellectually undemanding jobs. When job satisfactions of men and women were studied, the results showed that both men and women were equally unhappy with unchallenging work.

Myth: Women are less concerned with getting ahead. This myth is based on the belief that a woman's work is secondary to other interests. Studies have shown that individuals of both sexes seek to find satisfaction in their work. Many individuals find their careers to be a major source of satisfaction. Each case is individual.

Women who feel that they have little chance of being promoted may become less ambitious. When equal opportunity exists, women generally have the desire for advancement.

It should also be noted that some people of both sexes have little interest in job promotion. They do not want added responsibilities. They are content to receive the annual salary increment and the security of a steady job. It is not likely that future administrators will come from this group of people.

Myth: Young married women cannot take administrative positions because they must be available to move with their executive husbands. Career-oriented women may be married to career-oriented men. In some instances women have decided to forego a career for the husband's. However, each case is an individual decision. Not all women are married. Not all married women have executives as husbands. When a woman foregoes her own career for her husband's, it is usually because of the economic nature of the husband's job. When women have greater earning power, the husband may choose to forego advancement for his wife's advancement. Today, many career couples maintain separate residences and maintain commuter marriages in order that each partner may maintain a personal career goal. A large number of these couples are finding this arrangement to be agreeable to both parties. They find that the limited time spent together is quality time due to their separate career interests and responsibilities.

Myth: Women are not able to travel. Some women do not like to travel because they do not like to leave their families for long periods of time. Other women enjoy travel. This is an individual concern for both men and women.

The Facts. Myths must no longer dominate thinking regarding women's careers. As more and more women move into leadership positions, organizations and individuals will have to change their attitudes. However, women striving for leadership positions must be prepared to counteract such attitudes in their dealings with employers.

Vocational educators need to work to eliminate the myths regarding the employment of women. It would be quite appropriate to have female administrators in vocational education who could dispel these beliefs regarding women's careers. It is these stereotypic images that are used to relegate women to second-class employment and justify low salaries. The myths are false; they are not based on fact.

Attitudes Regarding Female Competence

Another generalized sex-role stereotype in our culture has held the idea that females are less competent than males. Goldberg (1968) found that professional articles were rated less favorably when the alleged author was thought to be female than when the author was thought to be male. The researcher had predicted this result when the articles were from professions typically considered male, such as law, but did not predict this from fields stereotypically female, such as elementary education. Similar studies (Fidell, 1970; Pheterson, Kiesler and Goldberg, 1971) have shown that female academicians and artists are evaluated less highly than males for identical performance.

Francke (1975) studied the perceived performance differences between male and female supervisors as viewed by superiors and subordinates. She discovered that the quantity of work completed by female supervisors is more satisfying to superiors than that of male supervisors. Subordinates perceive female supervisors to be more concerned with the quality of subordinate work than male supervisors. Superiors and subordinates perceived no significant differences between male and female supervisors in terms of their reaction to job pressures and job competence.

A number of research studies have shown that women administrators demonstrate performance that is equal, and in some instances, superior to the performance of men. When Grobman and Hines (1956) studied leadership styles among principals, women ranked significantly ahead of men as democratic principals and out-scored men in the use of effective administrative practices. When schools were rated by parents for overall effectiveness, those schools with women principals tended to outrank those with males as principals. A nationwide study described by Taylor (1973) substantiated these findings. The results showed that women principals outscored men in ability to work with others, were more concerned with objectives, had greater knowledge of teaching methods and techniques, and were able to obtain positive reactions from both teachers and superiors. The researchers concluded that there was no valid reason to prefer men over women as principals.

In an extensive study of the elementary school principalship, Gross and Trask (1976) found that both the professional performance of teachers and the academic performance of students were higher in schools administered by women. The study also revealed that women principals had more teaching experience, were more involved with the instructional program of their schools, and displayed greater concern for individual differences among children and for their social and emotional development than men principals. The researchers stated:

> . . . our findings undercut the arguments generally used to support the male preference policy in selecting elementary school principals . . . Our finding suggests that school systems that have been following a male preference policy should give serious consideration to abandoning it . . . implementing this proposal would have beneficial effects for the functioning of schools. (pp. 220-223)

Morsink's research (1969) provided additional findings which favor women in leadership positions. Her study noted that women secondary school principals are more persuasive in argument, more often act and speak as a group representative, emphasize production, maintain cordial relations with superiors, influence them, and strive for higher status more than men secondary school principals.

A review (Fishel and Pottker, 1975) of studies over the last 20 years analyzed the behavior of male and female principals. Women were found as capable if not more capable than their male counterparts in their ability to supervise and administer a school and in maintaining good relationships with parents and students. The researchers also found that prejudice against women as principals was exhibited by most male teachers, school superintendents, and school board members. The authors conclude: "Sex has been the determinant in appointment to principalship, rather than ability" (p. 115).

Van Meir (1975), in reviewing research to discover why women are under-utilized in school administration, points out that there is little, if any, significant evidence to support the notion that males are better suited for leadership and educational administration than females. He believes that sexual discrimination has played an important role and has influenced the selection of candidates for administrative positions.

According to Dale (1973), research findings which show that women are effective administrators have not helped to change the biased attitudes of employers. She stated:

> . . . the pattern of overlooking women as a rich reservoir of executive talent is so firmly set in the minds of most employers that significant research studies revealing the success of women in responsible jobs are largely ignored. (p. 125)

Dale also suggested that it is extremely difficult to obtain scientific data on the incidence and operation of employment practices that discriminate against women. She gave two reasons for this difficulty: (1) women themselves are often unaware of discriminatory practices or they are reluctant to "make waves," and (2) much discrimination is subtle, unstated, and unintentional. In some instances, sex bias is so subtle and unintentional that either the individual practicing discrimination or the individual discriminated against is not aware of its presence.

Attitudes Regarding Women in Leadership Positions

Biased attitudes toward women in leadership positions can present barriers to their employment. Owens (1976) identified some of the barriers to the employment of women administrators as perceived by men and women principals, teachers, and superintendents. The results showed that male superintendents and principals believed that women do not want to be administrators and that parents and communities prefer male administrators. Research by Makulski (1976) supported this information. Both studies supported the concept that women can be effective administrators, but that they experience discrimination in seeking such positions.

Timmons (1974) found that women teachers expressed more favorable attitudes toward women administrators than men teachers, but both men and women felt that a man would be selected over a woman. A significant proportion believed that prejudice in hiring and stereotyped attitudes were the major obstacles to women who aspired to be administrators. These findings were substantiated in part by Tipple (1973).

In a 1971 study of Connecticut school districts, Taylor (1973) found that other things being equal, superintendents and board of education members preferred men to women for leadership positions. The data revealed that sex was the only factor which appeared to have any significant correlation with the hiring process. The study also showed that half of the school systems studied did nothing to encourage women to train or apply for administrative positions and that few women were hired. Taylor found no written policies excluding women from administrative positions and few acknowledgements of unwritten policies.

Zumbrun's (1976) research showed wide divergence in superintendents' attitudes toward women administrators, with more positive attitudes among young, highly educated administrators in large districts. The results also indicated that affirmative action programs were not effective in creating greater employment opportunities for women administrators. Lynch (1973) examined attitudes toward women in management in a series of interviews with women managers. She found the following attitudes to be prevalent:

1. Women are too emotional to cope with crises.
2. A woman cannot be both competent and feminine.
3. Both men and women dislike working for women bosses.
4. The employment of women jeopardizes the family.

5. The presence of women in a job setting makes social interactions difficult.
6. Women workers ask for special privileges and preferential treatment.
7. Women managers are resented by their male peers.

Finding no factual basis for such attitudes, Lynch concluded that most negative perceptions of women managers are only myths which do not apply to modern women, but are nevertheless used effectively to exclude women from top-level positions.

Bass, Krusell and Alexander (1971) reported that male business managers expressed unfavorable attitudes toward women's dependability and supervisory potential, but were less unfavorable with regard to women's capabilities, emotional stability, and career orientation. Men who worked with women as colleagues or peers had less negative attitudes that those who worked with women as subordinates. The researchers concluded that positive attitudes toward women workers depended on interaction on an equal basis.

Bowman, Worthey, and Greyser (1965) revealed attitudes of male executives toward women in management, ranging from mildly favorable to mildly unfavorable. A substantial proportion of the men surveyed (41 percent) expressed negative attitudes; 6 percent were strongly opposed to women in management. More than half of the men felt that women were temperamentally unfit for management, and only 27 percent indicated that they would feel comfortable working for a woman. By contrast, 84 percent of the women executives surveyed expressed favorable attitudes toward women in management. Both men and women respondents agreed that a woman has to be exceptional, even overqualified, to succeed in management.

Simpson (1968) studied attitudes toward hiring women in academia. He used pairs of male/female resumes in conjunction with an employment rating scale and an instrument designed to measure attitudes toward women. He found that male applicants were rated higher than equally qualified females and that those who most preferred males also demonstrated the most negative attitudes toward women in general. Female applicants for academic appointments were chosen over male applicants only when their superior qualifications could not be ignored. Fidell (1970) used a similar technique to determine if there was sex discrimination in hiring practices in the area of psychology at institutions of higher education. Two forms of the instrument were used, each containing ten paragraphs describing the professional behavior of hypothetical psychologists. Respondents judged the desirability of the candidate and the level at which the candidate would be hired. The levels of appointment offered to male candidates were higher than that of female candidates with the same descriptive paragraph.

To the extent that promotional decisions regarding women are made by men in positions of authority, an obvious barrier to occupational advancement for women rests in the attitudes of these promoters toward women in management. Wolcott (1974) observed a group of educational personnel as they screened candidates for a principalship. He noted that candidates desirable to the committee very closely resembled the current position holders (the committee members themselves): male, married, approaching middle age, currently in an administrative role, and a long history in the school district. According to Schmuck (1976), screening committees, personnel directors, and other "gatekeepers" to the profession are usually men. Men generally recruit other men as administrators. Women administrators sometimes pose a "psychological threat" to male colleagues and a very real threat in terms of job security.

Several women who have advanced to key administrative positions in community and junior colleges were interviewed and asked to comment on "The Woman's View From the Top." One college president stated:

> There is no way that a woman can be named to a key administrative position unless the men who are selecting a candidate for a particular position are secure in their own jobs, have confidence in their own judgement, and have a commitment to utilize all resources and talents. (Community and Junior College Journal, 1976, p. 19)

These attitudes reflect the tendency of the decision makers to evaluate potential leaders in accordance with the "male" managerial model.

Evidence that the male sex-role stereotype coincides with the managerial model can be seen in McGregor's (1967) definition of a successful manager:

> The model of the successful manager in our culture is a masculine one. The good manager is aggressive, competitive, firm, and just. He is not feminine, he is not soft and yielding or dependent or intuitive in the womanly sense. The very expression of emotion is widely viewed as a feminine weakness that would interfere with effective business processes. (p. 23)

The male managerial model also restricts role models for women,and this becomes a barrier to their advancement.

Absence of Female Role Models

Another important part of occupational advancement is the role model which provides others with an example of what to aspire to and who to be like (Schmuck, 1976). Role models provide a technical explanation of how the role is to be performed. The absence of a successfully functioning female role model is a "barrier to the occupational aspirations and achievement behaviors of women in the labor force" (O'Leary, 1974, p. 819).

Lack of female role models is becoming a greater obstacle as the number of women in school administration decreases (Nieboer, 1975; Schmuck, 1975). Role modeling is a powerful form of learning not only for teachers and administrators, but also for students. Individuals within the classroom who never see women in leadership roles "are not likely to develop aspirations or values that move beyond traditional stereotypes" (Howard, 1975, p. 1). The lack of role models or experiences with them reinforces the stereotyped notion that men are better educational leaders (Grambs, 1977).

Freeman (1977) studied successful women in educational leadership in order to provide information which might be helpful to other women who might seek administrative positions. The women studied had difficulty in identifying female models who had inspired them to become administrators. They indicated that the primary motivation to become administrators was based on suggestions made from others--usually a male supervisor. In addition, a great deal of support for the idea was provided by family and friends.

Katz (1973) found that observation of women in non-traditional occupational roles caused women to view these occupations more favorably. Plost (1974) reported similar findings in a study of the career interests of 8th grade girls. These studies indicate that female models in non-traditional occupational roles provide a degree of social sanction for these occupations and encourage women to aspire to such roles. One might also conclude that the absence of adequate female models in non-traditional areas tends to limit women's career aspirations.

There is considerable evidence (Astin, 1977; Neiboer, 1975; Schlossberg, 1974; and Uehling, 1973) that the career aspirations of women are significantly influenced by exposure to appropriate role models. In addition, Bandura's (1969) research demonstrated that virtually all social learning resulting from direct experiences can occur on a vicarious basis through observation of other persons' behavior and its consequences. It is also thought that the lack of adequate role models may influence the professional socialization process.

The Professional Socialization Process

Neophytes learn the social norms and values of both the occupation and the organization through a process known as professional socialization, often an informal process. Researchers (Forisha, 1978; Prather, 1971; Schmuck, 1975; Sells, 1975, White, 1970) indicate that women are often excluded from this process, thus creating another obstacle for them. Many jobs in education are filled through informal networks. Because of domination of males at levels that influence selection and promotion, they also dominate the process. Qualified females often lack the visibility of and access to those persons most involved in the selection process (Taylor and Shavlik, 1977).

Another important aspect of the professional socialization process occurs when colleagues are invited to attend social activities. Administrative personnel (predominately male) often invite other male colleagues to share after-school activities as well as coffee breaks during the day. This important informal process provides the opportunity for the participants to learn the language, develop friendship ties, and even participate in discussions regarding important decisions. Discussions regarding promotions may occur in these settings. This is particularly true when the organization promotes from within. Individuals who do not participate in informal networks may not be visible at promotion time. Failure to participate in the informal socialization process may prevent the neophyte from learning the social norms and values of both the occupation and the organization. This can be harmful to the individual's professional growth and development. This is particularly true if the individual does not learn the rules from other sources. Sells (1975) recommends techniques that women can use in order to be included in the process; she also documents the importance of either being included in this network or learning how to gain information from it.

Educational Barriers

One comment that has been expressed in explaining the lack of women in administrative positions is that women do not have the appropriate academic credentials. Statistics compiled by Hooper (1972) have documented evidence that a lower proportion of women have been trained in administration than in other areas of education. In 1971, women received 74 percent of the undergraduate degrees in education; however, they received only 56 percent of the master's degrees and 21 percent of the doctorates. In the same year, women received only 21 percent of the master's degrees and 8.6 percent of the doctorates in educational administration. Steele (1974) reported that women comprise 54 percent of the undergraduate degrees in the areas related to vocational education, but only 30 percent of the doctorates in the area of vocational and technical education are awarded to females. Advanced degrees earned by women in vocational education are largely in the areas of home economics, nursing education, and health occupations. The decrease in female enrollment at the graduate level was cited as a contributing factor in limiting job advancement opportunities for women in vocational education. Steele suggested that universities have failed to encourage young women to seek advanced degrees and become qualified for leadership positions. She also noted that few of the women in graduate programs are able to benefit from the advice or example of women in leadership roles.

The Education Professions Development Program was developed to provide for leadership development in vocational education. The program had a 39 percent female enrollment, yet female graduates of the program do not appear to be highly visible in leadership outside traditional vocational program areas. Beckman (1976) cited the opportunity to enter an appropriate educational or training program as a major barrier to advancement for women. Vocational educators have had an opportunity to enter such a program yet they still do not appear to be highly visible in areas other than the traditional ones.

Although more women are gaining access to educational opportunities, barriers still exist. Roby (1973) reported several factors which serve as institutional barriers to women students in higher education. Admissions, finances and opportunities, counseling, and campus services were cited in her report. Others (Cohen, 1971; Lyon and Saario, 1973; and Westervelt, 1975) have indicated that these items are indeed barriers to women and report additional barriers including biased attitudes of individuals in the educational setting and failure of institutions to meet the special needs of women.

Westervelt (1975) found that women are discriminated against in admissions practices because of sex quotas for admission and attitudes toward women students. Age requirements fall harshly on women hoping to continue their education after rearing their children.

Access to financial assistance is one of the factors which is believed to encourage women to pursue advanced degrees. Some research has indicated that men have greater access to such assistance than women. A report on the status of women at the City University of New York (1974) revealed that financial aid for women graduate students averaged $1,000 less than that for men. Sandler (1972) found that women graduate students received more assistantships than men, but fewer grants, fellowships, scholarships, and travel grants. Financial aid is not often available for part-time study and many women attend school on a part-time basis. In addition, males working to defray college costs earned more than females. This was true not only in off-campus employment but also with employment on campus.

Advisors in higher education sometimes discourage women from entering nontraditional fields or discourage advanced degrees and training. This has been the case even when women have sound academic records. Women have also found biased attitudes in interaction with professionals at counseling centers. Women have found similar attitudes when interacting with individual professors regarding course work. Basic assumptions appear to be: women will also be provided for by men; women don't need an education; women won't complete their education and they aren't serious about it. Such assumptions prove to be false as many women will: remain single; be divorced or widowed; and/or, marry a low wage earner.

Life patterns of women often cause special problems as they attempt to continue their education. Mothers who desire to continue their education often incur the problem of identifying and obtaining adequate child care. Women who have interrupted their education in order to rear children or pay for a spouse's education find returning to education limited by a dearth of opportunities for part-time study, time limitations for obtaining degrees, residence requirements, and problems in transferring credits. These problems are shared by women at all levels of the socio-economic scale. They are also shared by women seeking all levels of education, training, and retraining.

These barriers prohibit women from pursuing educational goals. Such barriers also prohibit women from obtaining credentials necessary for certain occupational areas.

According to VanMeir (1975), women lack the appropriate credentials for administration; they do not earn credentials at the same rate as men; they do not desire to leave teaching; they are often reluctant to compete with men for administrative positions. Timpano and Knight (1976) found that women administrative applicants were required to hold appropriate certification, while this regulation was sometimes circumvented for men. They also found that established experience requirements often automatically excluded women applicants and that employers did not consider comparable alternate experience in lieu of rigid requirements. The researchers concluded:

> The best qualified woman will not be hired as an administrator unless the district is prepared to accept a woman or for some reason finds it necessary or expedient to do so. (p. 8)

The question becomes: Are education and lack of credentials actually barriers to the employment of women, or are they an effective means of filtering women seeking to obtain employment?

Employment Practices

In addressing the problem of discrimination against women, Dearing (1973) cited two major problems: (1) attitudes ingrained in our culture; and (2) the commitment to amateurism in employment practices. In a study of hiring practices, Cohen and Baker (1975) found that decisions were not influenced independently by the applicant's sex or position for which he/she was applying but rather by the interaction of the two variables. For example, more females than males were recommended for hiring for the editorial assistant position, while more males were recommended for the personnel technician job. Women were not recommended for top level or nontraditional positions.

According to Timpano (1976), emphasis on equal opportunity and affirmative action for women has not increased the number of women in top level administrative positions. Even the number of women in entry level administration is low. Timpano charges that the most effective sex discrimination is practiced through filtering methods in the employment process which filter out women--including women who are highly qualified. She indicates that the following recruitment, application, selection criteria, interview, and selection decision filtering methods have been used effectively to eliminate women who are qualified to be administrators.

Recruiting filters:

> Passing the word along about job openings through the informal buddy system, the "boys," or other fraternal or male-dominated professional associations.
>
> Using the formal buddy system by contracting university placement services known to recommend men even though qualified women are registered; and employing search groups or head hunters with established track records for selecting men, only, as finalists.
>
> Notifying women-oriented organizations of selected openings only, such as supervisor of home economics.
>
> Announcing "possible" positions, only to withdraw them when qualified women apply.

Limiting the announcement of a job opening to "within the district" when that district has few, if any, women certified as administrators.

Using sexist language throughout recruitment literature to convey subtly the image of a male candidate. And some of the measages are not so subtle, such as a district's widely-circulated job announcement that begins with: "We are seeking to replace a man who left our high school principalship . . ."

Advertising the position, but:

- Placing the advertisement in papers just one week before the deadline for filing applications;
- Advertising only after the selected candidate is already on the new job;
- Carefully selecting journals known to be circulated mostly among men;
- Using blind box numbers to avoid identifying the district. (If qualified individuals are rejected by receiving no response at all, they have no comeback.)

Application filters:

Downgrading an applicant for a top administrative opening by suggesting that she apply for a lesser administrative or teaching position, if available.

Placing on application forms questions (many of which are potentially illegal) that:

- attempt to elicit information about children and their ages, title as Miss or Mrs., spouse's name and work, marital status, and previous husband(s) name(s);
- lead to unequal pay for equal work by inquiring into the "lowest salary acceptable."

Separating, by sex, applications received from qualified applicants and automatically sending all women a form rejection.

Selection criteria filters:

Adhering to selection criteria unproven as valid predictors of successful performance, such as requiring a specific number of years of experience in a particular administrative position especially when few, if any, women hold such posts--a practice often considered evidence of discrimination when a district is investigated by enforcement agencies.

Not considering comparable or even superior alternate experience in lieu of established requirements.

Applying dual selection criteria by allowing men to skip one or more rungs on the career ladder while requiring women to climb each step and sometimes blocking them along the way.

Requiring women applicants hold appropriate state certification while . . . knowing how to circumvent this regulation for a "favored" male candidate.

Implying that physical strength is a requirement for a successful building principal or assistant principal.

> Interview filters:
>
> Holding interviews conducted by men only, individually or collectively.
>
> Asking women questions that are considered illegal, if they are not usually asked of male applicants for the same position. Such as:
>
> - "How will your children be cared for while you work?"
> - "How do you think men teachers will feel about receiving directions from a woman?"
> - "Aren't you concerned about returning home alone late in the evenings from meetings?"
>
> Attempting to elicit personal data from questions that now are deleted from application forms because of the actual or potential illegality of the questions--and then rejecting applicants who recognize this and remind you of the impropriety of questions.
>
> Acknowledging (through behavior, language, both verbal and nonverbal communication) appreciation of women primarily as sex objects while ignoring professional preparation or touching upon that preparation almost incidentally, with questions such as: "Why would such a bright and attractive woman even want to be a superintendent?"
>
> Selection decision filters:
>
> Rejecting a woman because she is "aggressive" while employing a man because he is aggressive.
>
> Selecting a woman in order to demonstrate publicly the district's commitment to equal opportunity while the district is privately aware that she will be eliminated shortly through a school closing or a negative personal factor such as her personal medical report.
>
> Offering a woman a position, finally, with the same responsibilities but different title and salary available to men on the district's staff. Example: Woman employed as administrative assistant to the high school principal with the same responsibilities but lower salary and less opportunity for advancement than the former or current male assistant principal. (Timpano, 1976, pp. 20-21)

Timpano challenges individuals in policy-making positions to carefully examine systems to determine if filtering methods are being used as a subtle form of discrimination against women. This may be accomplished by examining personnel rosters to determine the number of women employed in administration plus the positions that these women hold. If results show that women are under-represented or represented only in entry-level administrative posts, policies regarding hiring and promotion should be examined. Frequently the lack of them is evident, as far as women and minorities are concerned. Next, employment procedures should be studied for altering methods.

When employment policies and practices are studied, advancement possibilities for women should be considered. Advancement possibilities may be described as the possibility of being promoted to a higher level and better salaried job. Promotions in public education occur through transfer, class promotion, advancement to supervision, advancement by license, advancement by salary, advancement by merit, automatic advancement, advancement by fortuitous means, and/or advancement by a combination of means.

Because American workers' desires for promotion differ in nature and intensity, it is hard to determine with exactitude the number of workers dissatisfied with their advancement possibilities and the depth of their dissatisfaction. Dissatisfaction with advancement possibilities have been found to be closely correlated with the perception of on-the-job discrimination and overall job satisfaction.

INTERNAL BARRIERS

According to O'Leary (1974) and Disabatine (1976), certain internal barriers to the advancement of women exist. Internal barriers refer to factors which the female internalizes herself. They may result from the socialization process and sex role stereotyping. Included are role conflict, self-esteem, achievement motivation, fear of failure, and the motive to avoid success.

Role Conflict

Quinn, Snock and Rosenthal (1964) demonstrated the impact of personal, interpersonal, and organizational factors on role conflict, and in turn, on factors such as satisfaction and tension. Little attention has been focused on coping strategies for dealing with such conflicts and the relationship of such strategies to satisfaction and tension.

Hall (1972) indicated that the numerous sub-identities of women often present a clear example of chronic role conflict. The major role problem occurs because females face conflicts arising from multiple roles rather than conflicting expectations within a particular role. Conflict between roles is often a function of role overload and time conflicts rather than a function of intrinsic role incompatibility. As the number of roles increases, a woman experiences more conflict and feels more time pressure.

Hall and Gordon (1973) reported that among married women, employed or not, home pressures are the most important contributors to experienced role conflict and happiness. Apparently, home-related activities are of prime concern to married women, regardless of their personal orientation (career versus traditional). The conflicts experienced by women were strongly related to their perception of what men expect to see in women (Gordon and Hall, 1974). Conflicts involving nonhome roles were strongly associated with the women's perceptions of the average man's image of a feminine woman. Further, the greatest influence on the woman's self-rated conflicts was, again, her view of the male stereotype of femininity. This appears to support the popular argument that men control women not only through overt power and discriminatory behavior but also through the impact they have on women's attitudes and internal conflicts.

Working wives have expressed conflict over desire to work and concern about working. They weigh the benefits of working against concern for the well-being of their children and the nature of the marital relationship (Nye and Hoffman, 1963; Siegel and Haas, 1963). The literature relevant to career development among women suggests that the availability of support from a "significant" male may play a role in determining both the occupational aspirations and performance of women (Hawley, 1971; Lynch, 1973). It is thus plausible to assume that the absence of such support may strengthen the perception of role conflict and inhibit the ascendance of women already in the labor force into positions requiring greater responsibilities and time commitments.

Berger and Luckmann (1967) presented a theory of role development in which they suggested that roles develop from actions repeated frequently and cast into a pattern. The specification of what types of acts are to be performed by what type of actors is termed "typification." Research indicates that women engaged in occupations presently typified as male sex role appropriate suffer from role conflict (Holstrom, 1972; Poloma, 1972; Rapaport and Rapaport, 1972). Berger and Luckmann's theory would predict a reduction in role conflict once women's participation in non-traditional female roles is typified.

However, American society has designated the role of breadwinner and status-giver to the male, while the female's role revolves around the home. In analyzing the responses of 54 dual-professional couples, Poloma and Garland (1971) found that the assumption of a professional role by the wife did not mean a dramatic change in family roles. Their data yielded no indication that either men or women desired an equal sharing of both masculine and feminine role tasks in the family. While society may be approaching the day when the average married woman holds some kind of job, it does not appear that any dramatic increase in the prestige of the feminine role or any reversal of male-female roles in the family has resulted. Blood and Wolfe (1960) have shown certain differences in division of labor in families where the wife is employed outside the home, but they found no indication that the overall "relative balance" had been upset. Female educators in King's (1974) study reported that they had major responsibilities for home and children and that there was no trend toward a greater sharing of responsibilities within the family. However, a majority of the women expressed a positive attitude toward their own ability to manage home and career simultaneously.

Several studies have investigated the dual role conflict experienced by women professionals in vocational education. Long (1975), Sites (1975), and Basualdo (1975) found that both women faculty and their administrators perceived a degree of role-conflict for professional women. Basualdo (1975) indicated that most vocational educators viewed women's professional roles to be secondary to their roles as wife and mother.

As inflation continues to spiral upward, it becomes more necessary for women to work in order to maintain an adequate standard of living. Significant economic, political and social forces have encouraged the employment of women. As more and more women enter the work force, we must begin to take a closer look at the relationship of work to family responsibilities. If women continue to be subject to the pressures stemming from role conflicts inherent in their dual responsibilities, these pressures may constitute another barrier to their ascendency into higher level occupational positions. In addition, these factors may influence the self-concept of the female and her aspirations.

Self-Esteem

According to Korman (1970), one of the most important factors determining task performance of an individual is relevant to socially influenced self-esteem. Bardwick (1971) suggested that the value one places on the self determines the level of self-esteem. The lower a person's self-esteem, the greater the anxiety and the greater the tendency to assume a societally prescribed role. Pospisil (1974) suggested that women expressed low scores on measures of self-esteem--an indication that self-esteem is a problem with women. Other researchers (Putnam and Hansent, 1972; Bennett and Cohen, 1959) have indicated that females have a more negative self image than males.

Hollander (1972) found a negative relationship between the demonstration of academic achievement and social self-esteem scores for females but not for males. Females with A averages in high school had significantly lower self-esteem scores than females with C averages; the reverse was true for males. Hollander's interpretation of these findings suggests the existence of a positive relationship between self-esteem and exhibition of sex role appropriate behavior.

Results reported by Gordon and Hall (1974) indicated that the best predictor of a woman's happiness and satisfaction is her self-image. Spence, Helmreich and Stapp (1975) found that high femininity in women has been associated with lower self-esteem.

The period when individuals are traditionally called upon to make educational and vocational plans and decisions coincides with a period of heightened uncertainty and self-doubt in women's lives. Assessment of maturity shows that high school age women understand good vocational planning, yet they fail to implement it.

Super (1963) has pointed out the centrality of the vocational self-concept and the importance of identification with the same sex parent and others in developing the self-concept for all vocational development. Consequently, the problem may be in the development of the vocational self-concept of women. The scarcity of female role models who work, or who work in non-traditional areas, may provide a partial explanation. Women who are interested in careers and enter non-traditional or pioneering occupations tend to have working mothers (Tangri, 1972; Almquist and Angrist, 1971).

How can the self-concepts of women be enhanced so that they will be able to make intelligent choices for living and making a living? According to Knefelkamp, Widick, and Stroad (1978), women's self-concepts or role concepts need to allow for the existence of multiple roles without dualistic "either/or" thinking. A woman needs to be aware that being a wife and mother does not exclude being a worker, and that working in fields which have been male-dominated does not exclude positive personality characteristics such as warmth, expressiveness, and sensitivity--which have been considered to be feminine. Competence and femininity are not mutually exclusive. Women who understand this are usually able to define their own roles--which may range from that of homemaker to career pioneer or some variety within that range.

Women who become career pioneers and those who combine career with family often become active, competitive, and dominant in the work environment. They express characteristics which have been extremely visible in males. Harmon (1979) indicates that the appearance of these behaviors is enhanced in the presence of other males, yet women tend to express their needs for achievement in less competitive and more indirect ways than men.

According to Jakubowski (1978), many women lack certain skills which are useful in the world of work. Included are the ability to be assertive when assertiveness is required or to be decisive when decisiveness is required. These skills are necessary to gain personal self-esteem and the esteem of colleagues.

Tolor, Kelly and Stebbins (1976) found a positive relationship between self-concept and assertive behavior. Women low in sex-role stereotyping were significantly more assertive than men low in sex-role stereotyping. Women low in sex-role stereotyping had more positive self-concepts than men low in sex-role stereotyping.

Hollandsworth and Wall (1977) found that males report higher frequencies of assertive behavior than females. Other researchers (Jorgensen, 1975; Jakukowski, 1978) report conflicting information regarding assertiveness and assertiveness training. Assertiveness training is based on the belief that every person can and should pursue individual goals and maintain personal rights without violating the goals and rights of others. Assertiveness training stresses goal orientation and self-actualization as well as protection from the aggression of others. In addition, principles of transactional analysis have been introduced into assertiveness training. Participation in assertiveness training has increased the self-concepts of women, according to Johnson (1976), Adams (1977), Poole (1977), Harness (1977), and O'Leary (1977).

Achievement Motivation

According to O'Leary (1974), the literature on achievement motivation has assumed that the motive to achieve is one of the major determinants of anyone's striving for success. Yet studies related to achievement motivation in women have produced inconsistent results. A theoretical body of data does not exist, as it does for men, that can be used to predict achievement behavior as a function of achievement motivation. There appears to be two consistent findings related to achievement motivation that relate to differences in males and females. First, males respond more positively than females to competitiveness in achievement situations (Maccoby and Jacklin, 1974). Second, females tend to underestimate their personal abilities while males tend to overestimate personal abilities (Jackaway, 1974). Both of these are considered to be functions of the socialization processes (Goetz, 1978). Achievement goals emphasized in various roles differ.

Achievement orientation for females is likely to be manifested in situations which represent societally defined sex-role behavior. Women often set high attainment values and standards of performance in appropriate female sex-role tasks such as social skills and interpersonal relations. Women subscribe to many different goals as a function of their sex-role orientation (traditional vs. non-traditional). Each woman chooses achievement contexts in which she can strive for the goals she values most highly.

Through studies of achievement motivation in children, researchers (Crandall, Katkovsky, and Preston, 1962; Crandall and Robson, 1960) found no significant differences in achievement efforts between boys and girls. However, researchers in these studies concluded that girls lack confidence in their work and look for help and approval from adults more than do boys. Veroff (1969) distinguished two types of achievement motivation: autonomous and social comparison. Autonomous achievement motivation stems from internalized personal standards, and social comparison achievement motivation is activated in response to standards of excellence established by others. Veroff further indicated that males develop stronger autonomous achievement motivation while females become more receptive to external cues on standards for achievement-directed behavior. It has also been suggested (Hoffman, 1972; Walberg, 1969; Oetzel, 1966) that females have greater affiliative needs than those of males. Thus, women often express conflict between affiliation and achievement. Yet, a number of studies (Henning and Jardim, 1977; Freeman, 1977; Pfiffner, 1973; Schmuck, 1975) illustrate that women have been able to successfully integrate femininity with high achievement.

In a study of sex differences in perception of female success by Courtois and Sedlacek (1975), the results indicated that both men and women feel that male success is more expected and believable in our society. According to Baruch (1967), women with the highest achievement motive are more likely to be found among the employed after the nuclear family has been established. The opportunities are greater for the college-educated women to move from a preoccupation with achievement in fantasy to a later expression of this need through vocational behavior.

Wallace (1973) found that women who aspire to more demanding elite or leadership positions encounter powerful obstacles to achievement of equality in earnings, job satisfaction, status, and power. Women who seek careers in male occupations are considered deviants and are subject to social sanction. In addition, colleges and universities deny equal employment opportunity through their anti-nepotism rules. Some individuals contend that women are also reluctant to compete with men in order to obtain leadership positions. McMellin (1975) studied seniors in a college of education to find that the likelihood of women accepting leadership in an educational organization decreased as the level of responsibility increased. Lack of achievement motivation is often expressed as a reason for the absence of women in administration.

Timmons (1974) found significant differences in the professional aspirations of men and women teachers at the elementary level but not at the secondary level. The men who aspired to administrative positions were more likely than women aspirants to have actively pursued appropriate certification.

Landon (1975) investigated the perceptions of women teachers regarding their administrative career aspirations and their social role. The findings did not substantiate the belief that women's acceptance of stereotyped roles is responsible for their under-representation in educational leadership.

Dias (1975) indicated that lower aspirations among women educators were related to home-career conflict, lack of planning for advanced degrees, lower expectancies for support from present administrators, lower concept of self-potency, and greater self-role discrepancy. Although men respondents demonstrated significantly higher aspirations, the proportion of women with high aspiration levels was much greater than the proportion of women currently represented in the administrative ranks.

In a study by Basualdo (1975), it was found that women and vocational education directors agreed that women were not as likely to achieve leadership positions as men. Both perceived women's role first as mother, then as professional.

Long (1975) also found that female vocational teachers have a dim view of their own advancement possibilities. Both female teachers and their administrators believed that women were less likely to achieve administrative positions than men. Long's findings were substantiated by Sites (1975), who also reported that the professional aspirations of women vocational personnel, while relatively low, were higher than administrators perceived them to be.

A related study by King (1974) focused on the perceptions and aspirations of women vocational educators in community colleges. A significant portion of the women were teaching in traditionally female occupations and viewed their own advancement possibilities as poor. More than half felt that women were less likely to achieve leadership positions than men. Only 23 percent aspired to become full professors and only 16 percent aspired to become administrators.

The conventional job setting is one situation in which achievement motivation may be manifested. Heckhausen (1967) maintained that achievement motivation operates in all activities in which a standard of excellence is thought to apply. In addition, Rosen (1956) suggested that achievement motivation is often expressed through non-vocational behavior.

Atkinson and Feather (1966) proposed an expectancy-value theory of motivation. Through this theory, they suggest that achievement directed behavior is the result of the interaction of three variables: strength of the motive to achieve, expectancy of the consequences of success in a specific situation, and the value of such consequences. Atkinson and Feather have also characterized the individual with a high achievement motive as one who has developed an internal standard of excellence, is independent and persistent, undertakes realistic tasks, performs well, and has clearly understood goals. This model yields accurate predictions of achievement behaviors for males. It is not always true for females because females have different expectancies and incentive values for achievement related success.

Fear of Failure

Fear of failure may be a factor in women's reluctance to aspire to higher level positions. Such fear may result in an approach-avoidance conflict in response to achievement goal attainment.

According to Malone (1960), high fear-of-failure individuals usually select cautiously low or unrealistically high career goals. They are not likely to select career goals best suited to their abilities. According to Heckhausen (1967), high fear-of-failure individuals manifest withdrawal tendencies and are content with simpler occupations if it means avoiding the uncertainties and exertions of a more demanding career. If women suffer from a lack of confidence and self-esteem, it is feasible that they may be vulnerable to failure fears. This factor would influence their selection of leadership positions.

The Motive to Avoid Success

Horner (1973) found that most women associated academic success with loss of femininity and social rejection. She believed that such conflict created a "double bind" for bright women who, in achievement-oriented situations, tended to worry not only about failure, but about success as well. She concluded that some females equate intellectual achievement with loss of femininity and fear that success would hinder their social life. Expectancy by women that success in achievement-oriented situations will produce negative consequences has inhibited motivation, performance, and aspiration levels. Negative attitudes of male peers has been a significant factor in arousing the motive to avoid success. On the basis of her research, Horner suggested that the socialization of women discouraged the development of leadership traits and acted as a barrier to achievement. Epstein (1970) reached similar conclusions and further noted that this "double bind" resulted in limiting the career options of most women to those which are consistent with the female self-concept and with societal expectations.

Recent research (Prather, 1971) has shown that the motive to avoid success is not a stable recurring personality characteristic and that men exhibit similar tensions and uncertainties about the desirability of very high level achievement. Deux (1974) found that males and females in equivalent management positions are more similar than different. Ability differences occurred between the two groups, with males consistently rating their performance and ability higher and attributing success more to their ability. Female managers' estimates of ability were linked to self-estimated physical attractiveness and their perceived relationships with their supervisors. Miner (1974) also found no consistent male-female differences among managers already employed. Higher level managerial positions, however, were filled by women with stronger motivation to manage. Research results are conflicting in this area. Additional research is needed to isolate those responses most strongly associated with the inhibition of achievement and the motive to avoid success. Yet, it is realistic to view the motive to avoid success as a barrier to the employment of women in leadership positions.

SUMMARY

The foregoing discussion has served to review literature regarding the external and internal factors which may be barriers to the employment of women in administrative or leadership positions. External barriers included the socialization process and sex-role stereotyping, attitudes toward female career commitment, myths regarding the employment of women, attitudes toward female competence, attitudes toward women in leadership positions, absence of female role models, the professional socialization process, educational barriers and employment practices. Role conflict, self-esteem, achievement motivation, fear of failure, and the motive to avoid success were considered internal barriers. It is believed that these barriers have contributed to the imbalance of women in administrative positions in vocational education.

The review was utilized as a basis for designing subsequent phases of the research component. It was also used as a point of information for the synthesization phase.

THE RESEARCH COMPONENT

PHASE II: ATTITUDES, PERCEPTIONS, AND ASPIRATIONS OF KENTUCKY VOCATIONAL EDUCATION TEACHERS TOWARD ACCEPTING EMPLOYMENT AS ADMINISTRATORS IN VOCATIONAL EDUCATION

By: Carolyn G. Litchfield

- INTRODUCTION
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    - The Population
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- INTERPRETATION OF DATA
    - Spouse Support
    - Attitudes Regarding Current Professional Position
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- SUMMARY OF FINDINGS
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Attitudes Regarding Current Professional Position

Employment Concerns

Sex Role Attitudes

Self-Esteem

Aspirations

Applications for Administration

CONCLUSIONS

RECOMMENDATIONS

INTRODUCTION

According to Rieder (1977, p. 9), "the most important and difficult single barrier in eliminating sex stereotyping and segregation is attitudinal." If attitudes do, in fact, influence sex stereotyping in employment situations, they should be studied and carefully researched with regard to the reasons for an imbalance of women in administrative positions in vocational education. The attitudes of both potential administrators and current administrators should be considered.

The purpose of this phase of the research was to identify the attitudes, perceptions, and aspirations of Kentucky vocational education teachers toward accepting employment as administrators in vocational education. These individuals represent a pool from which potential administrators may be drawn. The study was designed to allow an indirect assessment of selected attitudes without revealing the intent of the study to respondents.

Statement of the Problem

What are the attitudes, perceptions, and aspirations of Kentucky vocational education teachers toward accepting employment as administrators in vocational education? Are there differences in the attitudes, perceptions, and aspirations of male and female teachers of vocational education in Kentucky? The answer to these basic questions were sought through this phase of the research.

In order to answer these basic questions, seven research questions were devised. Hypotheses were structured to allow comparisons of male and female teachers. The seven research questions and resulting null hypotheses were specified as follows:

Question 1: Is there a difference in the amount of spouse support received by male and female teachers?

H_{01a}: There will be no significant differences in the mean ratings for male and female teachers with regard to spouse support for educational activities.

H_{01b}: There will be no significant differences in the mean ratings for male and female teachers with regard to spouse support for professional career activities.

Question 2: Are the attitudes regarding current professional position of female teachers in vocational education different from those of male teachers?

H_{02}: There will be no significant differences in the mean ratings for male and female teachers on each of nine specific attitudes regarding their current professional position: general attitudes regarding the current professional position, salary or wages, work hours, working conditions, treatment by supervisor, opportunity to advance, relations with co-workers, health benefits, and the work itself.

Question 3: Are the employment concerns of female teachers in vocational education different from those of male teachers in vocational education?

H_{03a}: There will be no significant differences in the mean ratings for male and female teachers on twelve job-related employment concerns.

H_{03b}: There will be no significant differences in the mean ratings for male and female teachers on four home-related employment concerns.

H_{03c}: There will be no significant differences in the mean ratings for male and female teachers on eight personal problems related to employment.

H_{03d}: There will be no significant differences in the mean ratings for male and female teachers on other problems related to employment.

Question 4: Are the sex role attitudes of female teachers in vocational education different from those of male teachers?

H_{04}: There will be no significant difference in the mean sex role attitudes of male and female teachers as indicated on the BEM Sex Role Inventory scores.

Question 5: Is the self-esteem of female teachers in vocational education different from that of male teachers?

H_{05}: There will be no significant differences in the mean self-esteem of male and female teachers as indicated by the TSBIA.

Question 6: Are the aspirations of female teachers in vocational education different from those of male teachers?

H_{06}: There will be no significant differences in the mean aspirations of male and female teachers as indicated by the 25-item aspiration scale.

Question 7: Are the results of female applications for administration different from those of male teachers?

H_{07}: There will be no significant differences in the mean administrative applications of male and female teachers as indicated by the 26-item Application for Administration Scale.

METHODOLOGY AND DESIGN

The Population

The population consisted of Kentucky vocational education teachers. This included individuals teaching in the following vocational service areas: agriculture, business and office, marketing and distribution, home economics, and trades and industry, including health occupations. The Kentucky Vocational Education Directory (1977) was used to identify the population.

The Sample

A 15 percent stratified proportionate random sample was drawn with a dimension of at least 50 teachers in each vocational service area. The sample included 449 teachers from these areas: agriculture (50), business and office (100), marketing and distribution (50), home economics (100), and trade and industry, including health occupations (149).

Design for the Study

A one-shot survey design was utilized with a mail questionnaire. The study was designed to allow assessment of selected information without making the respondents aware of the intent of the study. Respondents were asked to participate in a study of employment practices in vocational education, but they were not apprised of the specific nature of the information sought.

Pilot Study

A pilot study was conducted to select and refine the instruments. Two instrument packets were prepared. Forty teachers participated in the pilot study. Twenty teachers were randomly assigned Instrument Packet BETA 1, and twenty teachers were randomly assigned Instrument Packet IOTA 1. These packages were mailed to the teachers following the same pattern intended for the final study.

After a two-week period, a follow-up effort was utilized. After an additional two-week time period, participants were contacted via telephone to obtain information regarding the instruments utilizing the Interview Schedule in Appendix A. Results of the Interview-Schedule were reviewed by the project staff. A decision was made to use the BETA 1 Packet in the study.

Instrumentation

The field test participants assisted the project staff in selecting and refining a seven-page questionnaire which was utilized in the study. It contained the following items:

1. Questions to obtain demographic data regarding the respondents,
2. A scale to obtain information from the respondents regarding spouse support for educational and professional career activities,
3. A scale to obtain information from the respondents regarding their attitudes toward their current professional position,
4. A scale to obtain information from the respondents regarding their employment concerns,
5. A sex-role inventory,
6. A measure of self-esteem or social competence,
7. A measure of aspirations,
8. A measure of the extent of applications for administrative positions in vocational education.

A letter from the project director provided general instructions regarding the instrument and provided assurance of anonymity for respondents. Specific instructions were included on the instrument.

The entire instrument packet appears in Appendix B. Most of it, with a few exceptions, was developed by the project staff. The rationale and techniques used in developing each section of this instrument is presented herein.

Demographic data. Through a literature review, many internal and external barriers were identified regarding the employment of women in administrative/leadership positions. The body of research regarding the attitudes, perceptions and aspiration of women illustrated conflicting results regarding the influence of selected demographic data on these variables. Therefore, these items were considered important to this research.

The instrument was designed to obtain the following demographic data: age, sex, race, residence, mobility, and marital status. It was also designed to obtain information regarding the respondents as follows: dependent children, highest degree held, additional education or training, educational preparation, vocational program area, years of professional experience in vocational education, years in current position, school situation, certification, and work experience.

Spouse support. According to Hawley (1971) and Lynch (1973), the support of a significant male is important to women who seek professional careers. Generally, this support comes from a spouse. Therefore, a rating scale was designed to obtain information regarding spouse support for educational and professional career activities.

Job attitudes and employment concerns. Challenges incurred on the job and job satisfaction may influence aspirations. These factors were recently studied by the National Commission on Working Women and are reported in National Survey of Working Women (1979). The survey used by the National Commission on Working Women was adapted for use with this study and included as a part of the instrument. This made it possible to obtain the following information from respondents: attitudes toward current position and employment concerns. See page 2 of the instrument.

Sex-role attitudes. Sex-role attitudes are thought to influence career choice. Therfore, they were considered important in this research. A review of measures of sex-role attitudes led to the Bem Sex-Role Inventory (BSRI). It was incorporated as page 3 of the instrument. The Bem instrument contains a number of features that distinguish it from other measures of sex-role attitudes.

> First, it includes both a Masculinity scale and a Femininity scale, each of which contains 20 personality characteristics.
>
> Second, because the BSRI was founded on a conception of the sex-typed person as someone who has internalized society's sex-typed standards of desirable behavior for men and women, these personality characteristics were selected as masculine or feminine on the basis of sex-typed social desirability and not on the basis of differential endorsement by males and females as most other inventories have done.
>
> Third, the BSRI characterizes a person as masculine, feminine, or androgynous as a function of the difference between his or her endorsement of masculine and feminine personality characteristics. A person is thus sex-typed, whether masculine or feminine, to the extent that this difference score is high, and androgynous, to the extent that this difference score is low.
>
> Finally, the BSRI also includes a Social Desirability scale that is completely neutral with respect to sex. This scale now serves primarily to provide a neutral context for the Masculinity and Feminity scales . . . (Bem, 1974, pp. 155-156).

Individuals who take the Bem Sex-Role Inventory are asked to indicate on a 7-point scale how well each of the 60 masculine, feminine, and neutral personality characteristics is personally descriptive. On the basis of personal responses, each person receives three major scores: a Masculinity score, a Femininity score and, most important, an Androgyny score. In addition, a Social Desirability score can be computed.

Self-esteem. Self-concept and self-esteem, or lack of such, have been identified as barriers to the employment of women in administrative/leadership positions. Self-esteem of teachers was studied in this phase of the research.

Form A of the Helmreich, Stapp, and Ervin (1974) Texas Social Behavior Inventory--a validated, objective measure of self-esteem or social competence--was utilized as page four of the instrument. According to Helmreich and Stapp (1974), this instrument is statistically and logically consistent and can be used with confidence to provide reliable indices of self-esteem.

Each item on the TSBIA has five response alternatives ranging from "not at all characteristic of me," to "very characteristic of me." Each item was given a score from 0 to 4 with 0 representing the response associated with lower self-esteem and 4 associated with highest self-esteem. A mean score is obtained representing the score for self-esteem.

Aspirations. In order to identify the aspirations of individuals toward accepting administrative positions in vocational education, a scale was devised by the project staff (page five of instrument). Respondents were asked to indicate on a six-point scale the likelihood that they would personally seek positions at the following levels: State Department of Education, regional, state vocational schools, area vocational centers, correctional institution, practical nursing schools, public school systems, colleges, universities, and community colleges.

Applications. It appears likely that individuals who aspire to administrative positions in vocational education are likely to apply for these positions. Therefore, information was sought from persons who had applied for administrative positions in vocational education in Kentucky. They were asked to provide information regarding the positions for which they applied. This included the following information: positions applied for, place of application, application date(s), reasons for not being hired (not offered, or offered and didn't accept for the following reasons), and/or date hired.

The project staff developed the instrument to be used to obtain information regarding applications. See pages six and seven of the instrument.

Data Collection

Data were collected by mailing the instrument; including a cover letter from Dr. Harold Binkley, Chairman, Department of Vocational Education; a letter from the project director; and a self-addressed, postage-paid envelope to the respondents. A small packet of coffee was attached to the cover letter with a note which read, "Have a cup of coffee on us while you complete your instrument!" Forward-and-return-to-sender requests were placed along with our return address on each envelope addressed to the sample.

The initial follow-up request was mailed 12 days after the instrument was mailed. The second follow-up request was mailed 12 days later. Follow-up letters are included in Appendix C.

Responses were received from a total of 349 of the participants, for a return rate of 77.7 percent. Of these returns, 33 were not usable. Usable returns were received from 316 participants, for a usable return rate of 70.3 percent.

Data Analysis

Data were transferred to op-scan sheets and subsequently to computer cards. Data were analyzed via computer using the Statistical Analysis System Computer Programs. In order to examine the hypotheses, *t*-tests for differences between means were conducted. The .05 level of significance was used as a basis for acceptance or rejection of the null hypothesis. Significance at the .01 level was also noted. In addition, descriptive statistics were utilized to obtain data based on the demographic chracteristics of the respondents.

INTERPRETATION OF DATA

In order to present the results of hypothesis testing for this phase, the following pattern was used. The topic of each research question was stated, followed by the research question, any hypotheses related to the research question, and a brief discussion of the analysis and interpretation of the data. Demographic data regarding teachers is presented in Appendix D.

Spouse Support

Is there a difference in the amount of spouse support received by male and female teachers? Two hypotheses were established in order to answer this question. Hypothesis H_{01a} stated: There will be no significant differences in the mean ratings for male and female teachers with regard to spouse support for educational activities. Hypothesis H_{01b} stated: There will be no significant differences in the mean ratings for male and female teachers with regard to spouse support for professional career activities. Table 4 presents the results of *t*-tests computed for these items.

Educational activities. Both male and female teachers indicated that they received a high degree of spouse support for educational activities. However, significant differences were found at the .01 level in the mean ratings for male and female teachers with regard to spouse support for educational activities. The mean rating for females was higher than the mean rating for males indicating that females receive a higher degree of support. Therefore, the null hypotheses was rejected with regard to spouse support for educational activities.

TABLE 4

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER PERCEPTIONS OF SPOUSE SUPPORT

Items Regarding Spouse Support	Teachers						t
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
a. Educational activities	132	4.67	1.72	153	5.15	1.67	.01**
b. Professional career activities	127	4.74	1.68	150	5.20	1.61	.02*

$^*P > .05$.
$^{**}P > .01$.

Professional career activities. Both male and female teachers indicated that they received a high degree of spouse support for professional career activities. However, significant differences were found at the .05 level in the mean ratings for male and female teachers with regard to spouse support for professional career activities. Females indicated that they received more support than did males. Therefore, the null hypothesis was rejected with regard to professional career activities.

Attitudes Regarding Current Professional Position

Are the attitudes regarding current professional position of female teachers in vocational education different from those of male teachers? In order to answer this question, Hypothesis H_{02} was developed: There will be no significant differences in the mean ratings for male and female teachers on each of nine specific attitudes regarding the current professional position: general attitudes regarding the current professional position, salary or wages, work hours, working conditions, treatment by supervisor, opportunity to advance, relations with co-workers, health benefits, and the work itself. Table 5 presents the results of _t_-tests computed for these items.

TABLE 5

_t_-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER ATTITUDES REGARDING CURRENT PROFESSIONAL POSITION

Items Regarding Professional Position	Teachers						t
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
1. General attitude regarding position	143	1.43	.59	173	1.36	.57	.29
2. Salary or wages	143	2.52	.84	173	2.05	.77	.00**
3. Work hours	143	1.64	.68	173	1.56	.66	.28
4. Working conditions	142	1.79	.76	173	1.81	.81	.83
5. Treatment by supervisor	143	1.65	.79	173	1.58	.75	.41
6. Opportunity to advance	141	2.37	.93	165	2.34	.92	.83
7. Relations with co-workers	141	1.34	.51	173	1.45	.67	.09
8. Health benefits	142	2.26	.87	171	1.96	.88	.01**
9. The work itself	143	1.33	.54	173	1.29	.49	.56

*$P > .05$.
**$P > .01$.

General attitude regarding position. No significant differences were found in the mean ratings for male and female teachers with regard to general attitude concerning the current professional position. Therefore, the null hypothesis was accepted with respect to general attitude regarding position.

Salary or wages. There were significant differences at the .01 level in the mean ratings for male and female teachers with regard to attitudes toward salary or wages. Males indicated greater mean dissatisfaction than females. The null hypothesis was rejected with regard to salary or wages.

Work hours. No significant differences were found in the mean ratings for male and female teachers with regard to attitude toward work hours. The null hypothesis was accepted with regard to work hours.

Working conditions. No significant differences were found in the mean ratings for male and female teachers with regard to attitudes toward working conditions. The null hypothesis was accepted with regard to working conditions.

Treatment by supervisor. No significant differences were found in the mean ratings for male and female teachers with regard to attitude toward treatment by supervisor. The null hypothesis was accepted with regard to treatment by supervisor.

Opportunity to advance. There were no significant differences in the mean ratings for male and female teachers with regard to the opportunity to advance. The null hypothesis was accepted with regard to opportunity to advance.

Relations with co-workers. No significant differences were found in the mean ratings for male and female teachers with regard to attitude toward relations with co-workers. Therefore, the null hypothesis was accepted with regard to relations with co-workers.

Health benefits. Significant differences were found in the mean ratings for male and female teachers with regard to health benefits.

Males indicated greater mean dissatisfaction with regard to health benefits than females. The null hypothesis was rejected at the .01 level with regard to health benefits.

The work itself. No significant differences were found in the mean ratings for male and female teachers with regard to attitude toward the work itself. The null hypothesis was accepted with regard to the work itself.

Employment Concerns

Are the employment concerns of female teachers in vocational education different from those of male teachers? Four hypotheses were developed to deal with this research question. The hypotheses were stated as follows:

H_{03a}: There will be no significant differences in the mean ratings for male and female teachers on twelve job-related employment concerns.

H_{03b}: There will be no significant differences in the mean ratings for male and female teachers on four home-related employment concerns.

H_{03c}: There will be no significant differences in the mean ratings for male and female teachers on eight personal problems related to employment.

H_{03d}: There will be no significant differences in the mean ratings for male and female teachers on other problems related to employment.

Job-related problems. The following employment concerns were classified as job-related problems: job is too difficult for me; job is physically tiring; job doesn't pay enough; need full-time work; would like to quit work, but can't afford it; layoffs and unemployment; job doesn't really use my skills; job is boring; discrimination because of sex; sexual harassment on the job; would prefer part-time work; and discrimination because of race. Results of *t*-tests computed for these items are presented in Table 6.

TABLE 6

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER JOB-RELATED EMPLOYMENT CONCERNS

Job-Related Problems	Teachers						t
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
1. Job is too difficult for me	143	5.15	.66	172	5.08	.64	.33
2. Job is physically tiring	143	4.59	1.10	172	4.01	1.17	.01**
3. Job doesn't pay enough	142	3.26	1.46	171	3.83	1.49	.00**
4. Need full-time work	139	5.46	.85	168	5.68	.78	.02**
5. Would like to quit, but can't afford to	142	5.25	1.15	171	4.80	1.40	.00**
6. Layoffs and unemployment	143	5.38	.79	172	5.50	.81	.18
7. Job doesn't really use my skills	142	4.83	1.10	172	5.06	1.04	.06
8. Job is boring	143	4.97	.86	170	4.94	.97	.72
9. Discrimination because of sex	141	5.35	.56	171	4.84	1.09	.00**
10. Sexual harassment on the job	143	5.42	.51	170	5.19	.78	.00**
11. Would prefer part-time work	143	5.53	.50	168	5.27	1.04	.00**
12. Discrimination because of race	143	5.41	.54	171	5.42	.65	.91

*$P > .05$.
**$P > .01$.

No significant differences were found in the mean ratings for male and female teachers with regard to the following job-related problems: job is too difficult for me; layoffs and unemployment; job doesn't really use my skills; job is boring; and discrimination because of race. Therefore, the null hypothesis was accepted with regard to these five job-related problems.

Significant differences were found at the .01 level in the mean ratings for male and female teachers with regard to the following job-related problems: job is physically tiring; discrimination because of sex; sexual harassment on the job; would like to quit work, but can't afford to; and would prefer part-time work. The mean ratings were higher for males than for females. This indicates that female teachers view these problems as job-related issues to a greater extent than male teachers. The null hypothesis was rejected with regard to these issues. Significant differences were also found at the .01 level in the mean ratings for male and female teachers with regard to the job-related problem: job doesn't pay enough. The mean rating was higher for females than for males. This indicates that male teachers view this problem as a job-related issue more than female teachers. The null hypothesis was rejected with regard to this issue.

The null hypothesis was also rejected with regard to one other job-related problem: need full-time work. Significant differences were found at the .05 level in the mean ratings for male and female teachers with regard to this job-related issue. The mean rating was higher for females than for males. This indicates that male teachers view the need for full-time work as a job-related issue more than female teachers.

Home-related problems. Four employment concerns were considered home-related problems. They included: burden of the job combined with the family; would like more help at home; problems with teenage children; and spouse doesn't want me to work. Results of *t*-tests computed for these items are presented in Table 7.

TABLE 7

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER HOME-RELATED EMPLOYMENT CONCERNS

Home-Related Problems	Teachers						t
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
1. Burden of job combined with family	143	4.33	1.34	172	3.78	1.30	.00**
2. Would like more help at home	143	5.33	.80	171	4.37	1.43	.00**
3. Problems with teenage children	143	5.18	.92	172	5.38	.91	.05*
4. Spouse doesn't want me to work	143	5.50	.61	167	5.34	.87	.07

*P .05.
**P .01.

Significant differences were found at the .01 level in the mean ratings for male and female teachers with regard to two of four issues: burden of the job combined with the family and would like more help at home. In each instance, males had higher mean ratings than females. This indicates that female teachers view these problems as home-related employment concerns more than male teachers.

Significant differences were found at the .05 level in the mean ratings for male and female teachers with regard to the issue of problems with teenage children. Females had higher mean ratings than males indicating that males view problems with teenage children as an issue more than female teachers.

No significant differences were found in the mean ratings for male and female teachers with regard to the home-related problem: spouse doesn't want me to work. The null hypothesis was accepted with regard to this issue. It was rejected with regard to all other home-related issues.

Personal problems. Eight employment concerns were considered personal problems. They included the following items: I lack the self-confidence to get ahead on my job; need child care; children are too young for my peace of mind; no chance to train for a better job; lack job counseling; transportation; no time to continue my education; and no time for leisure. Results of *t*-tests computed for these items are presented in Table 8.

Significant differences were found in the mean ratings for male and female teachers with regard to two personal employment-related concerns: no time to continue my education (.05), and no time for leisure (.01). The mean rating for males was higher than that for females indicating that females face these problems to a greater extent than males. The null hypothesis was rejected with regard to each of these issues.

No significant differences were found in the mean ratings for male and female teachers with regard to all other personal employment concerns. Therefore, the null hypothesis was accepted with regard to each of these issues.

TABLE 8

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER PERSONAL EMPLOYMENT CONCERNS

Personal Problems	Teachers						t
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
1. I lack the self-confidence to get ahead on my job	143	5.03	.80	171	4.82	.97	.06
2. Need child care	142	5.42	.81	170	5.25	1.07	.13
3. Children are too young for my peace of mind	142	5.38	.69	171	5.36	.91	.85
4. No chance to train for a better job	141	4.78	1.19	172	4.97	1.26	.20
5. Lack job counseling	141	4.92	1.09	171	5.09	1.06	.16
6. Transportation	143	5.13	.86	168	5.12	.77	.93
7. No time to continue my education	143	4.51	1.24	172	4.16	1.48	.02*
8. No time for leisure	139	4.61	1.29	167	3.87	1.42	.00**

*$P > .05$.
**$P > .01$.

Other problems. Teachers were asked to specify other items which might be an employment concern. Twenty-five teachers (14 males and 12 females) named other problems. Male teachers specified the following problems: too many chiefs, hours too long, having a home room, extra duties such as taking up tickets at ball games, little respect from administration, equipment, poor students, too much paperwork, and lack of communication. Female teachers specified these problems: inconsistencies between job description and realistic capabilities; age discrimination; favoritism, inconsistent rules; student concerns; need substitute teachers; meetings and conferences take too much time away from home; too much secretarial work with no secretarial assistance; too little time for class preparation; too much paperwork and extra activities such as meetings, and my family comes first, my job is second.

Table 9 presents results of t-test comparisons regarding other problems. Significant differences were found in the mean ratings for male and female teachers with regard to other problems. Differences were significant at the .05 level with the mean rating for males higher than that for females. This indicates that the female teachers believed they face other problems to a greater extent than male teachers.

TABLE 9

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER OTHER EMPLOYMENT CONCERNS

Item	Teachers						t
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
Other	14	3.57	2.40	12	1.83	1.40	.03*

*$P > .05$.
**$P > .01$.

Sex-Role Attitudes

Are the sex-role attitudes of female teachers in vocational education different from those of male teachers? The following hypothesis was developed in order to answer this research question: H_{04}: There will be no significant differences in the mean sex-role attitudes of male and female teachers as indicated on the Bem Sex-Role Inventory scores.

The Bem Sex-Role Inventory yielded three major scores: a Masculinity score, a Femininity score, and, most important, an Androgyny score. In addition, a Social Desirability score was computed. Results of t-test comparisons for the Bem Sex-Role Inventory are presented in Table 10.

TABLE 10

t-TESTS FOR DIFFERENCES IN MEAN RATINGS FOR MALE AND FEMALE TEACHER BEM SEX-ROLE INVENTORY SCORES

Bem Scale	Teachers						t
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
1. Masculinity	143	5.40	.68	173	4.92	.67	.00**
2. Femininity	143	4.78	.56	173	5.12	.50	.00**
3. Androgyny	143	1.29	1.50	173	- .42	1.68	.00**
4. Social Desirability	143	5.44	.52	173	5.51	.40	.19

*$p > .05$.
**$p > .01$.

Masculinity scores. Significant differences were found at the .01 level in the mean ratings for male and female teachers with regard to masculinity scores. Males had a higher mean rating than did females. The null hypothesis was rejected with regard to masculinity scores.

Femininity scores. Significant differences were found at the .01 level in the mean ratings for male and female teachers with regard to femininity scores. Females had a higher mean rating than did males. The null hypothesis was rejected with regard to femininity scores.

Androgyny scores. Significant differences were found at the .01 level in the mean ratings for male and female teachers with regard to androgyny scores. Females yielded a negative score illustrating that they are more androgynous than males. The null hypothesis was rejected with regard to androgyny scores.

Social desirability scores. No significant differences were found in the mean ratings for male and female teachers with regard to social desirability scores. Therefore, the null hypothesis was accepted.

Self-Esteem

Is the self-esteem of female teachers in vocational education different from that of male teachers? This question was answered by testing the following hypothesis: H_{05}: There will be no significant differences in the mean self-esteem of male and female teachers as indicated by the TSBIA. Results of t-test comparisons for the TSBIA are presented in Table 11.

TABLE 11

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER TSBIA SCORES

	Teachers						
	Male			Female			t
	N	X	s^2	N	$\bar{X}$	s^2	
TSBIA Scores	143	35.9	4.87	173	36.3	4.26	.41

*P .05.
**P .01.

No significant differences were found in the mean overall ratings for male and female teachers with regard to self-esteem as measured by the Texas Social Behavior Inventory Form A. The null hypothesis regarding self-esteem of teachers was accepted.

Aspirations

Are the aspirations of female teachers in vocational education different from those of male teachers? The hypothesis which follows was tested to answer this question. H_{06}: There will be no significant differences in the mean aspirations of male and female teachers as indicated by the 25-item aspiration scale. The aspiration scale included positions at the following levels: State Department of Education, regional, state vocational schools, area vocational centers, correctional institutions and practical nursing schools, public school systems, colleges and universities, and community colleges.

State Department of Education positions. Teachers were asked if they would seek the following positions at the State Department level: Deputy Superintendent for Occupational Education; Assistant Superintendent, Bureau for Vocational Education; assistant bureau officer; division director; unit director; unit assistant director; unit supervisor; and unit coordinator. Results of *t*-tests for differences in mean ratings of male and female teacher aspirations to State Department of Education positions are presented in Table 12.

Significant differences were found at the .01 level in the mean ratings for male and female teachers with regard to all but two of these positions. Significant differences were found at the .05 level in the mean ratings for male and female teachers with regard to the Unit Coordinator position. Overall mean ratings for males were higher than mean ratings for females. This indicates that males are more likely to apply for these positions than females. No significant differences were found with regard to the Unit Supervisor position.

TABLE 12

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER ASPIRATIONS TO STATE DEPARTMENT OF EDUCATION POSITIONS

Positions	Teachers						t*
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
1. Deputy Superintendent for Occupational Education	139	1.53	.71	167	1.25	.47	.00**
2. Assistant Superintendent Bureau for Vocational Education	137	1.58	.73	167	1.28	.51	.00**
3. Assistant Bureau Officer	137	1.62	.75	167	1.31	.57	.00**
4. Division Director	136	1.74	.86	168	1.38	.61	.00**
5. Unit Director	136	1.79	.95	167	1.48	.74	.00**
6. Unit Assistant Director	137	1.80	.95	167	1.52	.82	.01**
7. Unit Supervisor	137	1.89	1.00	167	1.69	.94	.07
8. Unit Coordinator	137	1.98	1.02	168	1.70	.96	.02*

$^*\underline{P} > .05.$
$^{**}\underline{P} > .01.$

The null hypothesis was rejected when the following State Department of Education positions were considered: Deputy Superintendent for Occupational Education; Assistant Superintendent, Bureau for Vocational Education; assistant bureau officer; division director; unit director; unit assistant director; and unit coordinator. The null hypothesis was accepted when the unit supervisor position was considered.

Regional Level Positions. Teachers were asked if they would seek the following regional level positions: regional director, regional program coordinator, regional industrial coordinator, and regional CETA

Coordinator. Results of t-test for differences in mean ratings of male and female teacher aspirations to regional level positions are presented in Table 13.

TABLE 13

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER ASPIRATIONS TO REGIONAL LEVEL POSITIONS

Positions	Teachers						t
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
1. Regional Director	138	1.94	.99	167	1.54	.75	.00**
2. Regional Program Coordinator	135	2.06	1.01	167	1.89	1.05	.14
3. Regional Industrial Coordinator	136	1.91	.93	166	1.56	.92	.00**
4. Regional CETA Coordinator	134	1.78	.81	167	1.51	.74	.00**

$^*\underline{P} > .05.$
$^{**}\underline{P} > .01.$

Significant differences were found at the .01 level in the mean ratings for male and female teachers with regard to these positions--regional director, regional industrial coordinator, and regional CETA coordinator. The mean ratings for males were higher than those of females indicating that males are more likely to apply for these positions than females. The null hypothesis was rejected for each of these positions.

No significant differences were found with regard to the regional program coordinator position. Therefore, the null hypothesis was accepted with regard to this position.

State vocational school positions. Administrative positions in state vocational schools are principal, assistant principal, and department head. Teachers were asked if they would seek these positions. Table 14 illustrates the results of t-tests for differences in mean ratings of male and female teacher aspirations to these positions.

TABLE 14

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER ASPIRATIONS TO STATE VOCATIONAL SCHOOL POSITIONS

Positions	Teachers						t
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
1. Principal	138	2.08	.99	165	1.44	.81	.00**
2. Assistant Principal	136	2.13	1.00	166	1.51	.90	.00**
3. Department Head	135	2.55	1.30	169	2.26	1.31	.05*

*P > .05.
**P > .01.

Significant differences were found at the .01 level in the mean ratings for male and female teachers with regard to the positions of principal and assistant principal. Significant differences were found in the mean ratings at the .05 level with regard to the department head position. Mean ratings for males were higher than those of females indicating that males are more likely to apply for these positions than females. Therefore, the null hypothesis was rejected for each of the positions.

Area vocational center positions. Coordinator or principal, assistant principal, and department head are the administrative positions in area vocational education centers. Teachers were asked if they would seek these positions. Results of t-test comparisons of aspirations to these positions are presented in Table 15.

TABLE 15

_t_-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER ASPIRATIONS TO AREA VOCATIONAL CENTER POSITIONS

Positions	Teachers						t
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
1. Coordinator or Principal	138	2.48	1.20	165	1.61	1.02	.00**
2. Assistant Principal	135	2.40	1.08	167	1.64	.96	.00**
3. Department Head	134	2.64	1.26	167	2.34	1.23	.04*

$^*\underline{P} > .05$.
$^{**}\underline{P} > .01$.

Significant differences were found in the mean ratings for male and female teachers with regard to all of these positions. Mean ratings for males were higher than those for females indicating that males were more likely to aspire to these positions than females. The null hypothesis was rejected with regard to the position of coordinator or principal, and assistant principal at the .01 level and at the .05 level with regard to the department head position.

Positions in correctional institutions and practical nursing schools. The administrative positions in vocational education within correctional institutions and practical nursing schools include coordinator or principal and assistant principal. Teachers were asked if they would aspire to these positions. Results of _t_-tests for differences in male and female teacher aspirations to these positions are presented in Table 16.

TABLE 16

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER ASPIRATIONS TO POSITIONS IN CORRECTIONAL INSTITUTIONS AND PRACTICAL NURSING SCHOOLS

Positions	Teachers						t
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
1. Coordinator or Principal	138	1.40	.70	164	1.35	.83	.61
2. Assistant Principal	137	1.39	.70	164	1.33	.77	.49

*$P > .05$.
**$P > .01$.

No significant differences were found in the mean overall ratings for male and female teachers with regard to these positions. Therefore, the null hypothesis was accepted for each of the positions in correctional institutions and practical nursing schools.

Public school system positions. The administrative positions in vocational education in public school systems in Kentucky are director or coordinator of vocational education and supervisor of a vocational program area. Teachers expressed their aspirations to these positions. Differences in mean ratings of male and female teacher aspirations to public school system positions are presented in Table 17.

No significant differences were found in the mean overall ratings for male and female teachers with regard to these positions. Therefore, the null hypothesis was accepted for each of the positions in public school systems.

TABLE 17

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER ASPIRATIONS TO PUBLIC SCHOOL SYSTEM POSITIONS

Positions	Teachers						t
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
1. Director or Coordinator of Vocational Education	138	2.23	1.14	166	2.13	1.16	.45
2. Supervisor of Vocational Program Area	136	2.37	1.17	166	2.26	1.20	.40

*P > .05.
**P > .01.

College and university level positions. College and university level administrative positions in vocational education include director of vocational education and program coordinator or supervisor. Aspirations to these positions were expressed, and differences in mean ratings of male and female teacher aspirations to these positions are presented in Table 18.

TABLE 18

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER ASPIRATIONS TO COLLEGE AND UNIVERSITY LEVEL POSITIONS

Positions	Teachers						t
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
1. Director of Vocational Education	138	1.85	.97	166	1.60	.90	.02*
2. Program Coordinator/ Supervisor	136	1.93	1.05	165	1.75	1.03	.16

*P > .05.
**P > .01.

Significant differences were found in the mean overall ratings for male and female teachers with regard to the director of vocational education position. Differences were significant at the .05 level. Males had higher mean ratings than females indicating that they were more likely to seek this position than females. The null hypothesis was rejected for the position of director of vocational education. No significant differences were found in the mean overall ratings for male and female teachers with regard to the program coordinator or supervisor positions. Therefore, the null hypothesis was accepted for this position.

Community college level positions. Program coordinator or supervisor is the major administrative position in vocational education at the community college level. Table 19 illustrates differences in mean ratings of male and female teacher aspirations with regard to this position.

TABLE 19

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF MALE AND FEMALE TEACHER ASPIRATIONS TO COMMUNITY COLLEGE LEVEL POSITIONS

Position	Teachers						t
	Male			Female			
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2	
Program Coordinator/ Supervisor	138	1.97	.99	167	2.03	1.20	.65

*P > .05.
**P > .01.

No significant differences were found in the mean overall ratings for male and female teachers. Therefore, the null hypothesis was accepted for this position.

Applications for Administration

Are the results of female teachers' applications for administration different from those of male teachers? The following hypothesis was designed to answer this question. H_{07}: There will be no significant differences in the mean administrative applications of male and female teachers as indicated by the 26-item Application for Administration Scale.

Only seven teachers indicated that they had applied for administrative positions in vocational education. Therefore, hypotheses regarding application for administration were not tested.

SUMMARY OF FINDINGS

Interpretation of the data revealed a number of findings. These findings are presented in seven major sections as follows: spouse support, attitudes regarding current position, employment concerns, sex-role attitudes, self-esteem, aspirations, and applications.

Spouse Support

Educational activities. Both male and female teachers indicated that they received a high degree of spouse support for educational activities. However, female teachers indicated that they received a higher degree of spouse support for educational activities than that indicated by male teachers.

Professional career. Both male and female teachers indicated that they received a high degree of spouse support for professional career activities. However, female teachers indicated that they received a higher degree of spouse support for professional career activities than that indicated by male teachers.

Attitudes Regarding Current Position

Male and female teachers hold similar attitudes regarding the following aspects of their current professional position: general attitude regarding position, work hours, working conditions, treatment by supervisor, opportunity to advance, relations with co-workers, and the work itself. However, male teachers are less satisfied with health benefits than female teachers.

Both male and female teachers indicated some dissatisfaction with the salary or wages in the current position. However, males expressed more dissatisfaction than that expressed by females.

Employment Concerns

Job-related employment concerns.

Both male and female teachers indicated that they rarely face most job-related employment concerns. Male and female teachers hold similar attitudes regarding the following concerns: job is too difficult for me; layoffs and unemployment; job doesn't really use my skills; job is boring; and discrimination because of race.

Female teachers view certain job-related problems as issues to a greater extent than male teachers. These included: job is physically tiring; discrimination because of sex; sexual harassment on the job; would like to quit work, but can't afford to; and would prefer part-time work.

Male teachers view certain job-related problems as issues more than female teachers. These include: job doesn't pay enough and need full-time work.

Home-related concerns. Both male and female teachers indicated that they had no problem with the following home-related concern: spouse doesn't want me to work. The teachers indicated that they did not usually have problems with teenage children. However, this was more of an issue for males than for females.

Male teachers indicated that they experienced no problem with the issue: would like more help at home. Female teachers indicated that this was rarely a problem.

Male teachers indicated that the burden of the job combined with the family was rarely a problem for them. Female teachers indicated that this was occasionally a problem.

Personal concerns. Both male and female teachers indicated that they did not experience problems with the following personal employment concerns: I lack the self-confidence to get ahead on my job; need child care; children are too young for my peace of mind; no chance to train for a better job; lack job counseling; and transportation. Both male and female teachers indicated that they rarely found the following personal concern as a problem: no time to continue my education. However, this was more of an issue for female teachers than for male teachers.

Male teachers indicated that they rarely found the following personal concern as a problem: no time for leisure. Female teachers indicated that this was occasionally a problem.

Other concerns. Male teachers indicated that they occasionally found other problems related to the job. They specified the following problems: too many chiefs; hours too long; having a home room; extra duties such as taking up tickets at ball games; little respect from administration; equipment, poor students, too much paperwork; and lack of communication.

Female teachers indicated that other employment concerns were somewhat of a problem to them. These problems were indicated as follows: inconsistencies between job description and realistic capabilities; age discrimination; favoritism, inconsistent rules; student concerns; need substitute teachers; meetings and conferences take too much time away from home; too much secretarial work with no secretarial assistance; too little time for class preparation; too much paperwork and extra activities such as meetings; and my family comes first, my job is second.

Sex-Role Attitudes

Male and female teachers expressed differences in their sex-role attitudes as measured by the Bem Sex-Role Inventory. Females had a higher femininity score than males. In addition, female teachers were found to be more androgynous than males. There were no significant differences in the sex-role attitudes of male and female teachers with regard to social desirability scores.

Self-Esteem

Male and female teachers did not differ significantly in terms of their self-esteem scores on the Texas Social Behavior Inventory Form A.

Aspirations

Male and female teachers did not indicate a high degree of aspiration toward administration in vocational education. In most instances males had a higher mean aspiration score than that expressed by females.

Six teachers (three males and three females) made comments on the Aspirations section of the questionnaire. Comments by the males were: (1) I like what I am doing; (2) I don't think I have enough college credits for any of these positions; and (3) I do not wish to become a supervisor unless many changes are made. The females commented as follows: (1) Not qualified; (2) The state's pay is less than I can make locally; (3) Since I am nearing retirement, this affects my answers.

State Department of Education. Male teachers indicated more aspiration to the following positions than that expressed by female teachers: Deputy Superintendent for Occupational Education, Assistant Superintendent, Bureau for Vocational Education; assistant bureau officer; division director; unit director; unit assistant director; and unit coordinator. Male and female teachers expressed similar aspirations to the unit supervisor position.

Regional level positions. Male teachers indicated greater aspiration to the following positions than that expressed by female teachers: regional director; regional industrial coordinator; and regional CETA coordinator. Male and female teachers expressed similar aspirations to the regional program coordinator position.

State vocational school positions. Male teachers indicated greater aspiration to all state vocational school positions than that expressed by female teachers. These positions included: principal, assistant principal, and department head.

Area vocational center positions. Male teachers indicated greater aspirations to all area vocational center positions than that expressed by female teachers. These positions included: coordinator or principal, assistant principal, and department head.

Positions in correctional institutions and practical nursing schools. Male and female teachers expressed similar degrees of aspiration to positions in correctional institutions and practical nursing schools. Such positions included coordinator or principal and assistant principal.

Public school systems. Male and female teachers expressed similar degrees of aspiration to positions in public school systems. These positions included: director or coordinator of vocational education and supervisor of vocational program area.

University level positions. Males indicated that they were more likely to aspire to the position of director of vocational education at the university level than female teachers. Both male and female teachers indicated similar aspiration levels to the program coordinator or supervisor position at this level.

Community college level position. Both male and female teachers indicated similar aspirations toward administration at this level. They might apply for a position as a program coordinator/supervisor at the community college level.

Applications for Administration

Only seven teachers indicated that they had applied for administrative positions in vocational education. This included five women and two men.

Of the five women indicating that they had applied for administrative positions in vocational education, three indicated that they had applied for more than one position. Applications were made during 1970 through 1977 with most of the applications occurring during 1977. The women sought the following positions: regional program coordinator, regional industrial coordinator, coordinator or principal of area vocational education centers, and public school supervisor of vocational education. In all cases the women were not offered the positions.

Two men indicated that they had applied for administrative positions in vocational education. One of these men indicated that he had applied for more than one position. Applications occurred during 1968 through 1976. The men sought these positions: regional program coordinator and coordinator or principal of an area vocational center. In three situations, the men were not offered the job. In one instance, the man was offered the job. He refused because it would require a costly move and the pay was not enough.

CONCLUSIONS

Analysis of the findings of this study provided a basis for the following conclusions:

1. Male and female teachers receive a high degree of spouse support for educational and professional career activities.
2. Male and female teachers are satisfied with their current position.

3. Male teachers are less satisfied with health benefits associated with the current position than female teachers.
4. Both male and female teachers experience some dissatisfaction with the salary or wages on their current position, but male teachers are less satisfied than female teachers. In addition, both male and female teachers occasionally find that the following is a job-related problem: job doesn't pay enough. However, males express more concern with this issue than that expressed by female teachers.
5. Basically, male and female teachers do not indicate that they experience many job-related employment concerns. There are differences in the job-related employment concerns perceived by male and female teachers. Males are more concerned with full-time work as a job-related problem than females. Females are more concerned with the following job-related problems than males: would like to quit, but can't afford to; would prefer part-time work; discrimination because of sex; sexual harassment on the job; and job is physically tiring.
6. Spouses of both male and female teachers want them to work.
7. Both male and female teachers indicate that they do not usually have problems with teenage children. However, this is more of an issue for male than female teachers.
8. Male teachers do not experience the home-related employment concern: need more help at home. This is rarely an issue for female teachers, but they do experience the problem.

9. Both male and female teachers indicate that the following personal problems rarely occur: no time to continue my education and no time for leisure. However, these problems were more of a concern for female teachers than male teachers.
10. Male teachers indicate that they occasionally experience other problems related to the job and most of these problems are job-related problems.
11. Female teachers indicate that other employment concerns are somewhat of a problem for them. These problems are both job-related and personal concerns.
12. Female teachers are more androgynous than male teachers.
13. Male and female teachers do not differ significantly in terms of their self-esteem scores as measured by the Texas Social Behavior Inventory Form A.
14. Both male and female teachers do not indicate a high degree of aspiration toward administration in vocational education. However, male teachers indicate a higher degree of aspiration toward administration than female teachers for 17 positions on the 25-item aspiration measure.
15. Only seven teachers indicate that they have applied for administrative positions. Their applications failed to result in employment offers with one exception. One male teacher was offered an administrative position. He did not accept it because it would require a costly move and the pay was not enough.

RECOMMENDATIONS

Based on the findings and conclusions reported in this phase of the research, the following recommendations are proposed:

1. Additional research should be conducted in order to determine the relationship between job satisfaction of teachers and their aspirations.
2. Male and female teachers differ in terms of their perceptions of certain employment concerns. Both male and female teachers may have a need to develop coping strategies for dealing with these problems. Therefore, in-service education might be provided to assist teachers in coping with employment concerns. Emphasis may also be placed on these employment concerns and coping techniques in pre-service teacher education courses.
3. Additional research should be conducted regarding the sex-role attitudes of vocational education teachers.
4. This study should be replicated with vocational educators in other states and regions of the nation to aid in determining whether the findings are descriptive only to Kentucky vocational education teachers.

SUMMARY

The purpose of this phase of the research was to identify the attitudes, perceptions, and aspirations of Kentucky vocational education teachers toward accepting employment as administrators in vocational education. A one-shot survey design was utilized with a mail questionnaire.

The population consisted of Kentucky vocational education teachers. A 15 percent stratified proportionate random sample was drawn with a dimension of at least 50 teachers in each vocational service area.

A pilot study was conducted to select and refine the instruments. Data were collected by mailing a seven-page instrument to participants with cover letters and a packet of coffee. Two follow-up efforts were initiated at 12-day intervals.

Responses were received from a total of 349 of the participants. Usable returns were received from 316 participants for a usable return rate of 70.3 percent.

Data were analyzed via computer. In order to examine the hypotheses, _t_-tests for differences between means were conducted. The .05 level of significance was used as a basis for acceptance or rejection of the null hypothesis. Significance at the .01 level was also noted. Interpretation of the data revealed a number of findings.

Both male and female teachers indicated that they received a high degree of spouse support for educational and professional career activities. However, female teachers indicated that they received a higher degree of support for these activities than that expressed by females.

Male and female teachers hold similar attitudes regarding the following aspects of their current professional position: general attitude regarding position, work hours, working conditions, treatment by supervisor, opportunity to advance, relations with co-workers, and the work itself. However, male teachers are less satisfied with health benefits than female teachers. Both male and female teachers indicated some dissatisfaction with the salary or wages in the current position. However, males expressed more dissatisfaction than that expressed by females.

Teachers were asked to express their views regarding job-related, home-related, personal, and other employment concerns. There were both similarities and differences in male and female teacher perceptions of these concerns.

Male and female teachers expressed differences in their sex-role attitudes as measured by the Bem Sex-Role Inventory. Teachers did not differ significantly in terms of their self-esteem scores as measured by the Texas Social Behavior Inventory Form A.

Male and female teachers did not indicate a high degree of aspiration toward administration in vocational education. In most instances males had a higher mean aspiration score than that expressed by females. Only seven teachers indicated that they had applied for administrative positions in vocational education. This included five women and two men.

The following recommendations were proposed based on the findings and conclusions reported in this phase of the research:

1. Additional research should be conducted in order to determine the relationship between job satisfaction of teachers and their aspirations.

2. Male and female teachers differ in terms of their perceptions of certain employment concerns. Both male and female teachers may have a need to develop coping strategies for dealing with these problems. Therefore, inservice education might be provided to assist teachers in coping with employment concerns. Pre-service teacher education courses should also place emphasis on coping with employment concerns.

3. Additional research should be conducted regarding the sex-role attitudes of vocational education teachers.

4. This study should be replicated with vocational educators in other states and regions of the nation to aid in determining if the findings are descriptive only to Kentucky vocational education teachers.

RESEARCH COMPONENT

PHASE III: ATTITUDES, PERCEPTIONS, AND ASPIRATIONS OF INDIVIDUALS WHO HIRE ADMINISTRATORS FOR VOCATIONAL EDUCATION

By: Carolyn G. Litchfield

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INTRODUCTION

The literature related to the reasons for an imbalance of women in administrative/leadership positions has suggested that individuals who hire administrators tend to hire persons who are like themselves. If this is true, the attitudes of both potential administrators and individuals who hire these potential administrators should be considered in research to determine the reasons for an imbalance of women in administrative positions in vocational education.

The purpose of this phase of the research was to identify the attitudes, perceptions, and aspirations of individuals who hire administrators for vocational education. This included both administrators in vocational education and non-vocational educators who are involved in the hiring process. The study was designed to allow an indirect assessment of selected attitudes without revealing the intent of the study to respondents.

Statement of the Problem

What are the attitudes, perceptions, and aspirations of individuals who hire administrators for vocational education? Are there differences in the attitudes, perceptions, and aspirations of administrators who hire vocational administrators and those of teachers in vocational education--a potential pool of administrators?

In order to answer these basic questions, seven research questions were devised. Hypotheses were structured to allow comparisons for administrators and teachers. The seven research questions and resulting null hypotheses were specified as follows:

Question 1: Is there a difference in the amount of spouse support received by administrators and teachers?

H_{01a}: There will be no significant differences in the mean ratings for administrators and teachers with regard to spouse support for educational activities.

H_{01b}: There will be no significant differences in the mean ratings for administrators and teachers with regard to spouse support for professional career activities.

Question 2: Are the attitudes regarding current professional positions of administrators different from those of teachers?

H_{02}: There will be no significant differences in the mean ratings for administrators and teachers on nine specific attitudes regarding the current professional position: general attitude regarding position, salary or wages, work hours, working conditions, treatment by supervisor, opportunity to advance, relations with co-workers, health benefits, and the work itself.

Question 3: Are the employment concerns of administrators different from those of teachers in vocational education?

H_{03a}: There will be no significant differences in the mean ratings for administrators and teachers on twelve job-related employment concerns.

H_{03b}: There will be no significant differences in the mean ratings for administrators and teachers on four home-related employment concerns.

H_{03c}: There will be no significant differences in the mean ratings for administrators and teachers on eight personal problems related to employment.

H_{03d}: There will be no significant differences in the mean ratings for administrators and teachers on other problems related to employment.

Question 4: Are the sex-role attitudes of administrators different from those of teachers?

H_{04}: There will be no significant differences in the mean sex-role attitudes of administrators and teachers as indicated on the BEM sex-role inventory scores.

Question 5: Is the self-esteem of administrators different from that of teachers?

H_{05}: There will be no significant differences in the mean self-esteem of administrators and teachers as indicated by the TSBIA.

Question 6: Are the aspirations of administrators different from those of teachers?

H_{06}: There will be no significant differences in the mean aspirations of administrators and teachers as indicated by the 25-item aspiration scale.

Question 7: Are the results of administrator applications different from those of teachers?

H_{07}: There will be no significant differences in the mean administrative applications of administrators and teachers as indicated by the 26-item Application for Administration Scale.

METHODOLOGY AND DESIGN

The Population

The population consisted of individuals who hire vocational educators at the state, regional, local, community college, college, and university levels in Kentucky. It included 197 administrators.

The Sample

The sample was comprised of the entire population--an intact group of 197 individuals. These individuals hire persons as vocational administrators at state, regional, local, community college, college, and university levels.

Design for the Study

A one-shot survey design was utilized with a mail questionnaire. The study was designed to allow assessment of selected information without making the respondents aware of the intent of the study. Respondents were asked to participate in a study of employment practices in vocational education, but they were not apprised of the specific nature of the information sought.

Instrumentation

A panel of experts from the University of Kentucky Department of Vocational Education was asked to assist in selecting and refining the instruments. Two instrument packets were prepared: BETA 1 and IOTA 1. The panel of experts reviewed the two instrument packets and indicated which packet should be used. Input from this panel was helpful in making the decision to use the BETA 1 Packet.

The instrument packet used was the same as that used in Phase II of "A Research Project to Determine the Reasons for an Imbalance of Women in Administrative Positions in Vocational Education" with a few exceptions. Administrators were asked to specify their position title rather than the school situation. In addition, cover letters were addressed to the administrators.

The complete instrument packet appears in Appendix E. The rationale and techniques used in developing each section of the instrument are presented in Phase II of "A Research Project to Determine the Reasons for an Imbalance of Women in Administrative Positions in Vocational Education."

Data Collection

Data were collected by mailing the instrument--including a cover letter from Dr. Harold Binkley, Chairman, Department of Vocational Education; a letter from the project director; and a self-addressed, postage-paid envelope--to the respondents. A small packet of coffee was attached to the cover letter with a note which read: "Have a cup of coffee on us while you complete your instrument!" Forward-and-return-to-sender requests, along with our return address, were placed on each envelope addressed to members of the sample.

The initial follow-up request was mailed 12 days after the instrument was mailed. The second follow-up request was mailed 12 days later. Follow-up letters are included in Appendix F.

Responses were received from 82 percent of the population. A 78 percent usable return was yielded from these responses representing 151 administrators (133 males and 18 females).

Data Analysis

Data were transferred to op-scan sheets and subsequently to computer cards. Data were analyzed via computer using the Statistical Analysis System Computer Programs. In order to examine the hypotheses, *t*-tests for differences between means were conducted. Hypothesis testing examined the differences in mean scores for administrators and teachers. After hypotheses were tested, an additional data analysis was conducted to examine differences in mean scores for administrators and male teachers and administrators and female teachers. The .05 level of significance was used as a basis for acceptance or rejection of each null hypothesis. Significant differences at the .01 level were also noted. In addition, descriptive statistics were utilized to obtain data based on the demographic characteristics of the respondents.

INTERPRETATION OF DATA

In order to present the results of data analysis for this phase of the research, the following pattern was used. The topic of each research question was stated, followed by the research question, any hypotheses related to the research question, and a brief discussion of the analysis and interpretation of the data. Demographic data regarding administrators are presented in Appendix G.

Spouse Support

Is there a difference in the amount of spouse support received by administrators and teachers? Two hypotheses were established in order to answer this question. Hypothesis H_{01a} stated: There will be no significant differences in the mean ratings for administrators and teachers with regard to spouse support for educational activities. Hypothesis H_{01b} stated: There will be no significant differences in the mean ratings for administrators and teachers with regard to spouse support for professional career activities. Table 20 presents *t*-tests for differences in mean ratings of (1) administrators and teachers, (2) administrators and female teachers, and, (3) administrators and male teachers, regarding perceptions of spouse support.

Educational activities. No significant differences were found in the mean ratings for (1) administrators and teachers, (2) administrators and female teachers, or, (3) administrators and male teachers, with regard to spouse support for educational activities. Therefore, the null hypothesis was accepted with regard to spouse support for educational activities.

Professional career activities. No significant differences were found in the mean ratings for (1) administrators and teachers, (2) administrators and female teachers, or, (3) administrators and male teachers with regard to spouse support for professional career activities. Therefore, the null hypothesis was accepted with regard to professional career activities.

TABLE 20

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO SPOUSE SUPPORT

Items Regarding Spouse Support	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\overline{X}$	s^2	N	$\overline{X}$	s^2		N	$\overline{X}$	s^2		N	$\overline{X}$	s^2	
a. Educational activities	139	5.04	1.70	285	4.93	1.70	.56	153	5.15	1.70	.54	132	4.67	1.71	.08
b. Professional career activities	138	5.09	1.61	277	4.99	1.65	.56	150	5.20	1.61	.55	127	4.74	1.68	.08

*P > .05.
**P > .01.

Attitudes Regarding Current Professional Position

Are the attitudes regarding current professional positions of administrators in vocational education different from those of teachers? In order to answer this question, Hypothesis H_{02} was developed. There will be no significant differences in the mean ratings for administrators and teachers on each of nine specific attitudes regarding the current professional position: general attitudes regarding the current professional position, salary or wages, work hours, working conditions, treatment by supervisor, opportunity to advance, relations with co-workers, health benefits, and the work itself. Table 21 presents *t*-tests for differences in mean ratings of (1) administrators and teachers, (2) administrators and female teachers, and, (3) administrators and male teachers for attitudes regarding current professional position.

General attitude regarding position. Significant differences were found in the mean ratings for administrators and teachers with regard to general attitude concerning the current professional position. Such differences were found at the .01 level when administrators and teachers were compared and when administrators and male teachers were compared. Significant differences were found at the .05 level when administrators and female teachers were compared. Therefore, the null hypothesis was rejected with respect to general attitude regarding position.

Mean ratings for all teacher groups were higher than those for administrators. This indicates that teachers dislike their current professional position more than administrators.

TABLE 21

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO CURRENT PROFESSIONAL POSITION

Items Regarding Professional Position	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2		N	$\bar{X}$	s^2		N	$\bar{X}$	s^2	
1. General attitude regarding position	148	1.24	.47	316	1.39	.58	.01**	173	1.36	.57	.04*	143	1.43	.60	.00**
2. Salary or wages	151	2.60	.93	316	2.26	.83	.00**	173	2.05	.77	.00**	143	2.52	.85	.41
3. Work hours	151	1.54	.68	316	1.59	.67	.47	173	1.56	.66	.88	143	1.64	.69	.24
4. Working conditions	151	1.47	.64	315	1.80	.79	.00**	173	1.82	.81	.00**	142	1.80	.77	.00**
5. Treatment by supervisor	150	1.46	.71	316	1.61	.77	.05*	173	1.58	.76	.18	143	1.65	.79	.04*
6. Opportunity to advance	145	2.12	.84	306	2.35	.92	.01**	165	2.35	.93	.03*	141	2.37	.92	.02*
7. Relations with co-workers	149	1.23	.48	314	1.40	.60	.00**	173	1.46	.67	.00**	141	1.34	.52	.07
8. Health benefits	150	1.94	.90	313	2.09	.88	.08	171	1.96	.88	.90	142	2.27	.86	.00**
9. The work itself	151	1.30	.57	316	1.31	.52	.91	173	1.29	.49	.87	143	1.33	.54	.71

*P > .05.
**P > .01.

Salary or wages. There were significant differences at the .01 level in the mean ratings for administrators and teachers with regard to attitudes toward salary or wages. Administrators indicated greater mean dissatisfaction than teachers. No significant differences were found when male teachers were compared with administrators. Significant differences were found at the .01 level when administrators were compared with female teachers. The administrators indicated greater mean dissatisfaction than female teachers. The null hypothesis was rejected with regard to salary or wages for administrators and teachers and for administrators and female teachers. The null hypothesis with regard to salary or wages was accepted when administrators and male teachers were compared.

Work hours. No significant differences were found in the mean ratings for administrators and teacher groups with regard to attitude toward work hours. Therefore, the null hypothesis was accepted with regard to work hours.

Working conditions. Significant differences were found at the .01 level in the mean ratings for administrators and teachers with regard to attitudes toward working conditions. These differences were found when administrators were compared with both male and female teachers. The null hypothesis was rejected with regard to working conditions.

Mean ratings for all teacher groups were higher than those for administrators. This indicates that teachers express greater dissatisfaction with working conditions than that expressed by administrators.

Treatment by supervisor. Significant differences were found at the .05 level in the mean ratings for administrators and teachers with regard to attitude toward treatment by supervisor. These differences were also found when male teachers were compared with administrators. They were not found when female teachers and administrators were compared. Therefore, the null hypothesis was rejected with regard to treatment by supervisor when administrators and teachers were compared. It was accepted when female teachers and administrators were compared.

Mean ratings for the total teacher group and male teachers were higher than the mean for administrators. This indicates that teachers, particularly male teachers, express greater dissatisfaction with treatment by supervisor than that expressed by administrators.

Opportunity to advance. There were significant differences at the .01 level in the mean ratings for administrators and teachers with regard to the opportunity to advance. Such differences were found at the .05 level when administrators were compared both with male and female teachers. The null hypothesis was rejected with regard to opportunity to advance.

Mean ratings for teacher groups were higher than the mean for administrators. This indicates that teachers express greater dissatisfaction with regard to advancement opportunities than that expressed by administrators.

Relations with co-workers. Significant differences were found in the mean ratings for administrators and teachers at the .01 level with regard to attitude toward relations with co-workers. Differences were found at this level when female teachers were compared with administrators. No significant differences were found when male teachers were compared with administrators. Therefore, the null hypothesis was rejected with regard to relations with co-workers when administrators and teachers were compared and when administrators and female teachers were compared. It was rejected when male teachers and administrators were compared.

Mean ratings for the total teacher group and female teachers were higher than the mean for administrators. This indicates that teachers, particularly female teachers, express greater dissatisfaction with co-worker relations than that expressed by administrators.

Health benefits. No significant differences were found in the mean ratings for administrators and teachers or administrators and female teachers with regard to health benefits. Significant differences were found when male teachers were compared with administrators. The null hypothesis was rejected at the .01 level with regard to health benefits when male teachers were compared with administrators. It was accepted when the total teacher group was compared with administrators and when administrators were compared with female teachers.

Mean ratings for male teachers were higher than the mean for administrators. This indicates that male teachers express greater dissatisfaction with health benefits than that expressed by female teachers and administrators.

The work itself. No significant differences were found in the mean ratings for administrators and teacher groups with regard to attitude toward the work itself. Therefore, the null hypothesis was accepted with regard to the work itself.

Employment Concerns

Are the employment concerns of administrators in vocational education different from those of teachers? Four hypotheses were developed to deal with this research question. The hypotheses were stated as follows:

H_{03a}: There will be no significant differences in the mean ratings for administrators and teachers on twelve job-related employment concerns.

H_{03b}: There will be no significant differences in the mean ratings for administrators and teachers on four home-related employment concerns.

H_{03c}: There will be no significant differences in the mean ratings for administrators and teachers on eight personal problems related to employment.

H_{03d}: There will be no significant differences in the mean ratings for administrators and teachers on other problems related to employment.

Job-related problems. The following employment concerns were classified as job-related problems: job is too difficult for me; job is physically tiring; job doesn't pay enough; need full-time work; would like to quit work, but can't afford to; layoffs and unemployment; job doesn't really use my skills; job is boring;

discrimination because of sex; sexual harassment on the job; would prefer part-time work; and discrimination because of race. Table 22 presents results of t-tests for differences in mean ratings of (1) administrators and teachers, (2) administrators and female teachers, and (3) administrators and male teachers, with regard to job-related employment concerns.

No significant differences were found in the mean ratings for administrators and teacher groups with regard to the following job-related problems: job is too difficult for me; job doesn't really use my skills; and discrimination because of race. Therefore, the null hypothesis was accepted with regard to each of these job-related problems.

Significant differences were found at the .01 level when mean ratings of administrators and female teachers were compared regarding the following job-related problems: job is physically tiring and job doesn't pay enough. Therefore, the null hypothesis was rejected with regard to these issues when administrators and female teachers were compared. It was accepted when comparisons were made with other groups.

Female teachers had lower mean scores than male teachers and administrators with regard to the job-related problem: job is physically tiring. This indicates that female teachers face this problem to a greater extent than that expressed by male teachers or administrators.

Female teachers had higher mean scores than male teachers and administrators with regard to the job-related problem: job doesn't pay enough. This indicates that male teachers and administrators

TABLE 22

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO JOB-RELATED EMPLOYMENT CONCERNS

Job-Related Problems	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2		N	$\bar{X}$	s^2		N	$\bar{X}$	s^2	
1. Job is too difficult for me	151	5.03	.68	315	5.11	.65	.22	172	5.08	.64	.51	143	5.15	.66	.12
2. Job is physically tiring	151	4.46	1.08	315	4.28	1.17	.10	172	4.01	1.18	.00**	143	4.59	1.10	.30
3. Job doesn't pay enough	150	3.37	1.71	313	3.58	1.51	.18	171	3.83	1.50	.01**	142	3.26	1.46	.59
4. Need full-time work	150	5.74	.62	307	5.59	.82	.04*	168	5.68	.78	.48	134	5.46	.85	.01**
5. Would like to quit, but can't afford to	151	5.47	.99	313	5.00	1.31	.00**	171	4.80	1.40	.00**	142	5.25	1.14	.98
6. Layoffs and unemployment	151	5.63	.53	315	5.45	.79	.01**	172	5.50	.81	.09	143	5.38	.78	.00**
7. Job doesn't really use my skills	151	5.03	1.11	314	4.95	1.07	.47	172	5.06	1.04	.83	142	4.83	1.10	.12
8. Job is boring	150	5.16	.87	313	4.95	.92	.02*	170	4.93	.98	.03*	143	4.97	.86	.05*
9. Discrimination because of sex	149	5.28	.82	312	5.07	.92	.02*	171	4.84	1.09	.00**	141	5.35	.56	.38
10. Sexual harassment on the job	151	5.46	.61	313	5.30	.68	.02*	170	5.19	.79	.00**	143	5.42	.51	.64
11. Would prefer part-time work	151	5.68	.56	311	5.39	.85	.00**	168	5.27	1.05	.00**	143	5.53	.50	.02*
12. Discrimination because of race	151	5.54	.63	314	5.42	.60	.06	171	5.42	.65	.13	143	5.41	.55	.09

*P > .05.
**P > .01.

face this problem to a greater extent than that expressed by female teachers.

Significant differences were found in the mean ratings at the .05 level for administrators and teachers and at the .01 level for administrators and male teachers with regard to the job-related problem: need full-time work. They were not found when female teachers and administrators were compared. The null hypothesis was rejected with regard to this issue when administrators were compared with teachers and when male teachers were compared with administrators. It was accepted when female teachers were compared with administrators.

Mean ratings with regard to the need for full-time work were higher for administrators. This indicates that teacher groups face this problem to a greater extent than that expressed by administrators.

Significant differences were found at the .01 level when mean ratings for teachers and administrators were compared regarding the job-related issue: would like to quit but can't afford to. Such differences were not found when mean ratings for administrators were compared with male teachers or with female teachers. Therefore, the null hypothesis was rejected with regard to this issue when administrators and teachers were compared. It was accepted when administrators were compared with both male and female teachers. Mean ratings regarding this issue were higher for administrators. This indicates that teacher groups face this problem to a greater extent than that expressed by administrators.

Significant differences were found at the .01 level when mean ratings for administrators and teachers, particularly male teachers,were compared regarding layoffs and unemployment. Mean ratings for administrators were higher than those of both total teachers and male teachers. This indicates that teachers, particularly male teachers,face layoffs and unemployment as a job-related problem to a greater extent than that expressed by administrators. The null hypothesis regarding layoffs and unemployment was rejected when administrators and teachers, particularly male teachers,were compared. It was accepted when female teachers and administrators were compared.

Significant differences in mean ratings were found at the .05 level when comparisons were made between administrators and teachers and at the .01 level when female teachers and administrators were compared for the job-related issues: discrimination because of sex and sexual harassment on the job. No significant differences were found when administrators and male teachers were compared with regard to these issues. Hypotheses regarding these issues were rejected with regard to administrators and teachers plus administrators and female teachers. They were accepted with regard to administrators and male teachers. Mean ratings regarding these issues were higher for administrators. This indicates that teachers, particularly female teachers, face these problems to a greater extent than that expressed by administrators.

Significant differences were found at the .05 level when mean ratings for administrators and all teacher groups were compared with respect to the job-related issue: job is boring. Mean ratings were higher for administrators, indicating that teachers face this job-related problem to a greater extent than that expressed by administrators. Therefore, the null hypothesis with respect to this issue was rejected.

Significant differences in mean ratings were found at the .01 level when (1) administrators and teachers, and (2) administrators and female teachers were compared with respect to the job-related issue: would prefer part-time work. They were also found at the .05 level when male teachers were compared with administrators. Mean ratings were higher for administrators, indicating that teachers face this issue to a greater extent than that expressed by administrators. The null hypothesis was rejected regarding this issue.

Home-related problems. Four employment concerns were considered home-related problems. They included: burden of the job combined with the family; would like more help at home; problems with teenage children; and spouse doesn't want me to work. Table 23 presents *t*-tests for differences in mean ratings of (1) administrators and teachers, (2) administrators and female teachers, and (3) administrators and male teachers with regard to home-related employment concerns.

Significant differences were found at the .01 level in the mean ratings for (1) administrators and teachers, and (2) administrators and female teachers with regard to the issue: would like more help at home. Mean ratings were higher for administrators indicating that teachers, particularly female teachers, face this issue to a greater extent than that expressed by administrators. The null hypothesis was rejected with regard to this issue when comparisons were made

TABLE 23

t-TESTS FOR DIFFERENCE IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO HOME-RELATED EMPLOYMENT CONCERNS

Home-Related Problems	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2		N	$\bar{X}$	s^2		N	$\bar{X}$	s^2	
1. Burden of job combined with family	150	4.30	1.23	315	4.03	1.34	.03*	172	3.78	1.30	.00**	143	4.32	1.33	.88
2. Would like more help at home	150	5.38	.84	314	4.81	1.28	.00**	171	4.37	1.43	.00**	143	5.32	.80	.55
3. Problems with teenage children	151	5.46	.78	315	5.30	.92	.05**	172	5.39	.91	.43	143	5.18	.91	.01*
4. Spouse doesn't want me to work	150	5.58	.63	310	5.42	.77	.03*	167	5.34	.87	.01*	143	5.50	.61	.29

$*\underline{P} > .05.$
$**\underline{P} > .01.$

for (1) administrators and teachers, and (2) administrators and female teachers. It was accepted when male teachers and administrators were compared.

Significant differences were also found at the .05 level for administrators and teachers with regard to the issue: spouse doesn't want me to work. These differences were significant at the .01 level when administrators and female teachers were compared. Mean ratings were higher for administrators than teachers. This indicates that teachers, particularly female teachers, face this issue to a greater extent than that expressed by administrators. The null hypothesis was rejected with regard to this issue when comparisons were made for (1) administrators and teachers, and (2) administrators and female teachers. It was accepted when male teachers and administrators were compared.

Significant differences were found at the .05 level in the mean ratings for administrators and teachers with regard to the issue of problems with teenage children. These differences were significant at the .01 level when administrators and male teachers were compared. Mean ratings for administrators were higher than those for teachers, particularly male teachers. This indicates that teachers, especially male teachers, face problems with teenage children to a greater extent than that expressed by administrators. The null hypothesis was rejected with regard to this issue when comparisons were made for (1) administrators and teachers, and (2) administrators and male teachers. It was accepted when female teachers and administrators were compared.

Personal problems. Eight employment concerns were considered personal problems. They included the following items: I lack the self-confidence to get ahead on my job; need child care; children are too young for my peace of mind; no chance to train for a better job; lack job counseling; transportation; no time to continue my education; and no time for leisure. Table 24 illustrates *t*-tests for differences in mean ratings of (1) administrators and teachers, (2) administrators and female teachers, and (3) administrators and male teachers with regard to personal employment-related concerns.

No significant differences were found in the mean ratings for male and female teachers with regard to the following personal problems: I lack the self-confidence to get ahead on my job, and transportation. The null hypothesis was accepted with regard to each of these issues.

The null hypothesis was rejected at the .01 level for all groups with regard to the personal issue: children are too young for my peace of mind. The mean ratings were higher for administrators than for teacher groups. This indicates that teacher groups face this issue to a greater extent than that expressed by administrators.

The null hypothesis was also rejected for all groups with regard to the personal issue: lack job counseling. Significant differences were found at the .01 level when comparisons were made for (1) administrators and teachers, and (2) administrators and male teachers. Differences were significant at the .05 level when administrators and female teachers were compared. The mean ratings were higher for administrators than for teacher groups. This

TABLE 24

t-TESTS FOR DIFFERENCE IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO PERSONAL EMPLOYMENT RELATED CONCERNS

Personal Problems	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2		N	$\bar{X}$	s^2		N	$\bar{X}$	s^2	
1. I lack the self-confidence to get ahead on my job	149	4.99	.87	314	4.92	.91	.47	171	4.84	.98	.15	143	5.03	.81	.67
2. Need child care	151	5.50	.77	312	5.33	.96	.05*	170	5.25	1.07	.02*	142	5.42	.81	.34
3. Children are too young for my peace of mind	151	5.56	.61	313	5.37	.82	.01**	171	5.36	.91	.01**	142	5.38	.69	.01**
4. No chance to train for a better job	150	5.12	1.06	313	4.88	1.23	.05*	172	4.97	1.27	.24	141	4.79	1.19	.01**
5. Lack job counseling	146	5.30	.82	312	5.01	1.07	.00**	171	5.09	1.05	.04*	141	4.92	1.08	.00**
6. Transportation	151	5.16	1.01	311	5.13	.80	.73	168	5.13	.77	.73	143	5.13	.85	.81
7. No time to continue my education	150	4.76	1.34	315	4.31	1.39	.00**	172	4.16	1.49	.00**	143	4.51	1.24	.09
8. No time for leisure	148	4.64	1.28	306	4.21	1.40	.00**	167	3.87	1.42	.00**	139	4.61	1.29	.88

*P > .05.

**P > .01.

indicates that teachers lack job counseling to a greater extent than administrators.

Significant differences were found in the mean ratings for administrators and teachers (.05) and administrators and female teachers (.01) with regard to the personal employment-related concern: need child care. The null hypothesis was rejected with respect to the need for child care when these groups were compared. It was accepted when male teachers and administrators were compared. Mean ratings were higher for administrators than for teachers. This indicates that the issue is faced to a greater extent by teachers (particularly female teachers).

The null hypothesis with respect to the issue of no chance to train for a better job was rejected at the .05 level when teachers and administrators were compared and at the .01 level when male teachers and administrators were compared. It was accepted when administrators and female teachers were compared. Mean ratings were higher for administrators than for teachers. This indicates that teachers, particularly male teachers, view this issue to a greater extent than administrators.

Hypothesis testing regarding two job-related issues of no time to continue my education and no time for leisure yielded the following results. The hypotheses were rejected at the .01 level when teachers and administrators were compared and when female teachers and administrators were compared. The hypotheses were accepted for these issues when male teachers and administrators were compared. Mean ratings were higher for administrators than for female teachers. This indicates that teachers, particularly female teachers, face these issues to a greater extent than administrators.

Other problems. Administrators were asked to specify any other items which might be an employment concern. Eleven administrators and 26 teachers named other items. However, no significant differences were found in the mean ratings for administrators and teachers with respect to these issues and the null hypothesis was accepted with regard to other employment comparisons between teachers and administrators plus both male and female teachers and administrators. Table 25 illustrates results of *t*-tests comparisons for this issue.

Sex-Role Attitudes

Are the sex-role attitudes of administrators in vocational education different from those of teachers? The following hypothesis was developed in order to answer this research question: H_{04}: There will be no significant differences in the mean sex-role attitudes of teachers and administrators as indicated on the BEM Sex-Role Inventory scores.

The Bem Sex-Role Inventory yields three major scores: a Masculinity score, a Femininity score, and, most importantly, an Androgyny score. In addition, a Social Desirability score can be computed. Table 26 illustrates *t*-test comparisons for administrators and teacher groups with regard to these scores.

Masculinity scores. Significant differences were found at the .01 level in the mean ratings for administrators and teachers and for administrators and female teachers with regard to masculinity scores. The null hypothesis was rejected with regard to masculinity

TABLE 25

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO OTHER EMPLOYMENT CONCERNS

Employment Concern	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2		N	$\bar{X}$	s^2		N	$\bar{X}$	s^2	
Other	11	2.81	2.35	26	2.76	2.15	.95	12	1.83	1.40	.23	14	3.57	2.40	.44

*$\underline{P} > .05$.
**$\underline{P} > .01$.

TABLE 26

t-TESTS FOR DIFFERENCE IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO THE BEM SEX-ROLE INVENTORY

Bem Scale	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2		N	$\bar{X}$	s^2		N	$\bar{X}$	s^2	
1. Masculinity	151	5.51	.62	316	5.13	.71	.00**	173	4.92	.67	.00**	143	5.40	.68	.15
2. Femininity	151	4.79	.41	316	4.97	.55	.00**	173	5.13	.50	.00**	143	4.78	.57	.87
3. Androgyny	151	1.51	1.51	316	.34	.81	.00**	173	-.42	1.68	.00**	143	1.29	1.50	.21
4. Social Desirability	151	5.56	.49	316	5.48	.46	.07	173	5.51	.40	.28	143	5.54	.52	.03*

*$\underline{P}$ > .05.
**$\underline{P}$ > .01.

scores when these groups were compared. No significant differences were found when administrators and male teachers were compared. Therefore, the null hypothesis was accepted with respect to this item when these groups were compared.

Femininity scores. Significant differences were found at the .01 level in the mean ratings for administrators and teachers and administrators and female teachers with regard to femininity scores. The null hypothesis was rejected with regard to femininity scores. No significant differences were found when administrators and male teachers were compared, and the null hypothesis was accepted when these groups were compared.

Androgyny scores. Significant differences were found at the .01 level in the mean ratings for administrators and teachers and administrators and female teachers with regard to androgyny scores. The null hypothesis was rejected with regard to androgyny scores for these groups and accepted when male teachers and administrators were compared.

Social desirability scores. No significant differences were found in the mean ratings for administrators and teacher groups with regard to social desirability scores. Therefore, the null hypothesis was accepted.

Self-Esteem

Is the self-esteem of administrators different from that of teachers? This question was answered by testing the following hypothesis: H_{05}: There will be no significant differences in the mean self-esteem of administrators and teachers as indicated by the TSBIA.

Table 27 presents t-tests for differences in mean ratings of administrators and teacher groups with regard to self-esteem. No significant differences were found in the mean overall ratings for administrators and teachers (including male and female teacher comparisons) with regard to self-esteem as measured by the Texas Social Behavior Inventory Form A. The null hypothesis regarding self-esteem was accepted.

Aspirations

Are the aspirations of administrators different from those of teachers? The hypothesis which follows was tested to answer this question: H_{06}: There will be no significant differences in the mean aspirations of administrators and teachers as indicated by the 25-item aspiration scale. This scale included positions at these levels: State Department of Education, regional, state vocational schools, area vocational centers, correctional institutions and practical nursing schools, public school systems, colleges and universities, and community colleges.

State Department of Education positions. Administrators and teachers were asked if they would seek the following positions: Deputy Superintendent for Occupational Education, Assistant Superintendent, Bureau for Vocational Education, assistant bureau officer, division director, unit director, unit assistant director, unit supervisor, and unit coordinator. Hypotheses were tested for each of these positions. Results of t-tests for differences in mean

TABLE 27

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO SELF-ESTEEM

Measure	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\overline{X}$	s^2	N	$\overline{X}$	s^2		N	$\overline{X}$	s^2		N	$\overline{X}$	s^2	
TISBIA	151	35.86	3.69	316	36.13	4.54	.49	173	36.32		.30	143	35.90	4.87	.94

*$P > .05$.
**$P > .01$.

ratings of administrators and teacher groups with regard to these positions are presented in Table 28.

For the position of Deputy Superintendent for Occupational Education, there are significant differences in the aspirations of teachers and administrators (.01), female teachers and administrators (.01), and male teachers and administrators (.05). Therefore, the null hypothesis with regard to this position was rejected.

Significant differences existed at the .01 level in the means for all comparison groups with regard to each of the following positions: Assistant Superintendent Bureau of Vocational Education, assistant bureau officer, division director, and unit director. The null hypothesis was rejected with regard to each of these positions.

Significant differences existed in the aspirations of teachers and administrators (.05) and female teachers and administrators (.01) with regard to aspirations to the position of unit assistant director. No significant differences were found when male teachers and administrators were compared regarding this position. Therefore, the hypothesis with regard to the unit assistant director position was rejected when teachers and administrators and female teachers and administrators were compared. It was accepted when male teachers and administrators were compared.

No significant differences were found in aspirations to the unit coordinator position. The null hypothesis for this position was accepted with regard to all comparison groups.

The mean ratings for administrators were higher than those for teacher groups with regard to each position at the State Department of Education level. This indicates that administrators express

TABLE 28

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO ASPIRATIONS TOWARD ADMINISTRATIVE POSITIONS AT THE STATE DEPARTMENT OF EDUCATION

Positions	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2		N	$\bar{X}$	s^2		N	$\bar{X}$	s^2	
1. Deputy Superintendent for Occupational Education	146	1.75	.85	306	1.38	.61	.00**	167	1.25	.48	.00**	139	1.54	.71	.02*
2. Assistant Superintendent Bureau for Vocational Education	146	1.88	.96	304	1.41	.64	.00**	167	1.28	.51	.00**	137	1.58	.73	.00**
3. Assistant Bureau Officer	146	1.95	.97	304	1.45	.67	.00**	167	1.31	.57	.00**	137	1.62	.76	.00**
4. Division Director	146	2.10	1.21	304	1.54	.76	.00**	168	1.38	.61	.00**	136	1.74	.86	.00**
5. Unit Director	146	2.26	1.52	303	1.62	.85	.00**	167	1.48	.74	.00**	136	1.79	.95	.00**
6. Unit Assistant Director	144	1.90	1.13	304	1.65	.89	.02*	167	1.52	.82	.00**	137	1.80	.94	.45
7. Unit Supervisor	144	1.97	1.26	304	1.78	.97	.13	167	1.69	.95	.03*	137	1.89	1.00	.62
8. Unit Coordinator	144	1.96	1.27	305	1.83	1.00	.30	168	1.70	.97	.06	137	1.99	1.02	.84

*P > .05.
**P > .01.

greater likelihood of aspiration toward administrative positions at the State Department of Education level than that expressed by teachers.

Regional level positions. Respondents were asked if they would seek the following regional level positions: regional director, regional program coordinator, regional industrial coordinator, and regional CETA coordinator. Table 29 presents results of t-tests for differences in mean ratings of administrators and teacher groups regarding aspirations toward administrative positions at the regional level.

Significant differences were found at the .01 level for all comparison groups with regard to the regional director position. The null hypothesis was rejected with regard to all groups for this position. Mean ratings for administrators were higher than those for teachers. This indicates that administrators express greater likelihood of aspiration toward the regional director position than that expressed by teachers.

Significant differences were found in the aspirations toward the regional program coordinator position when comparisons were made of the following groups: teachers and administrators (.01), female teachers and administrators (.01), and male teachers and administrators (.05). The null hypothesis with respect to this position was rejected. Mean ratings for administrators were higher than those of teachers. This indicates that administrators express greater likelihood of aspiration toward the regional program coordinator position than that expressed by teachers.

TABLE 29

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO ASPIRATIONS TOWARD ADMINISTRATIVE POSITIONS AT THE REGIONAL LEVEL

Positions	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2		N	$\bar{X}$	s^2		N	$\bar{X}$	s^2	
1. Regional Director	146	2.56	1.49	305	1.72	.89	.00**	167	1.54	.76	.00**	138	1.94	.99	.00**
2. Regional Program Coordinator	146	2.38	1.40	302	1.97	1.04	.00**	167	1.89	1.05	.00**	135	2.06	1.01	.03**
3. Regional Industrial Coordinator	144	2.02	1.12	302	1.72	.94	.00**	166	1.57	.92	.00**	136	1.91	.93	.35
4. Regional CETA Coordinator	144	1.77	.97	301	1.62	.78	.11	167	1.51	.74	.01**	134	1.78	.82	.90

*P > .05.
**P > .01.

Significant differences were also found in aspirations toward the regional industrial coordinator position when comparisons were made for teachers and administrators (.01) and female teachers and administrators (.01). The null hypothesis with respect to this position was rejected when these groups were compared. No significant differences were found in the aspirations of male teachers and administrators with respect to this position; and the null hypothesis was accepted when these groups were compared. The mean ratings for administrators were higher than those for teachers, especially female teachers. This indicates that administrators and male teachers express a greater likelihood of aspiring to the Regional Industrial Coordinator position than that expressed by female teachers.

No significant differences existed in the aspirations of the following comparison groups toward accepting employment as a regional CETA coordinator: teachers and administrators and male teachers and administrators. The null hypothesis was accepted when comparisons were made between these groups for this position. It was rejected when the comparison was made between female teachers and administrators. Significant differences were found at the .01 level when these groups were compared. Mean ratings for administrators and male teachers were higher than those of female teachers. This indicates that administrators and male teachers are more likely to aspire to the regional CETA coordinator position than female teachers.

State vocational school positions. Administrative positions in state vocational schools are principal, assistant principal, and department head. Respondents were asked if they would seek these positions. Table 30 presents results of t-tests for differences in mean ratings of administrators and teacher groups with regard to aspiration toward administrative positions at the State Vocational School level.

Significant differences existed in aspirations toward the principal position when two groups were compared: teachers and administrators (.01) and female teachers and administrators (.01). No significant differences were found in the aspirations of male teachers and administrators toward this position. Therefore, the null hypothesis for this position was rejected for the administrators and teachers and female teachers and administrators. It was accepted with regard to male teachers and administrators. Mean ratings for administrators and male teachers were higher than those for female teachers. This indicates that administrators and male teachers are more likely to aspire to the state vocational school principal position than female teachers.

There were no significant differences in the aspirations of teachers and administrators toward the position of assistant principal. The null hypothesis for this position was accepted when these groups were compared. Comparisons between male teachers and administrators yielded significant differences at the .01 level. Significant differences were also noted at this level when female teachers and administrators were compared. Mean scores for administrators were higher than those for male teachers. However, mean scores for administrators were higher than those for female teachers. This indicates that male teachers are more likely to aspire to the state vocational school assistant principal position than

TABLE 30

t-TESTS FOR DIFFERENCE IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO ASPIRATIONS TOWARD ADMINISTRATIVE POSITIONS IN STATE VOCATIONAL SCHOOLS

Positions	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\overline{X}$	s^2	N	$\overline{X}$	s^2		N	$\overline{X}$	s^2		N	$\overline{X}$	s^2	
1. Principal	141	2.18	1.46	303	1.74	.95	.01**	165	1.44	.81	.00**	138	2.07	.99	.52
2. Assistant Principal	144	1.81	1.12	302	1.79	1.00	.92	166	1.51	.90	.01**	136	2.13	1.00	.01**
3. Department Head	144	1.63	.89	304	2.39	1.31	.00**	169	2.26	1.32	.00**	135	2.55	1.30	.00**

*P > .05.
**P > .01.

administrators, but administrators are more likely to seek this position than female teachers. The null hypothesis was rejected when male teachers were compared with administrators and when female teachers were compared with administrators.

Significant differences existed among all comparison groups at the .01 level with respect to the department head position. The null hypothesis was rejected with respect to this position for all comparison groups. Mean ratings for teacher groups were higher than those for administrators. This indicates that both male and female teachers are more likely to apply for the department head position at state vocational schools than administrators.

Area vocational school positions. Coordinator or principal, assistant principal, and department head are the administrative positions in area vocational education centers. Respondents were asked if they would seek these positions. Results of *t*-tests for differences in mean ratings of administrators and teacher groups with regard to area vocational center positions are presented in Table 31.

Significant differences were found in the mean ratings for all comparison groups with regard to the coordinator or principal position. Therefore, the null hypothesis was rejected with regard to this position. The mean ratings for administrators and male teachers were higher than those for female teachers. This indicates that administrators and male teachers are more likely to apply for this position than female teachers.

Significant differences were found at the .01 level in the mean ratings for administrators and teachers with regard to the

TABLE 31

$\underline{t}$-TESTS FOR DIFFERENCE IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO ASPIRATIONS TOWARD ADMINISTRATIVE POSITIONS IN AREA VOCATIONAL CENTERS

Positions	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\overline{X}$	s^2	N	$\overline{X}$	s^2		N	$\overline{X}$	s^2		N	$\overline{X}$	s^2	
1. Coordinator or Principal	137	3.13	2.22	303	2.00	1.19	.00**	165	1.61	1.02	.00**	138	2.49	1.20	.00**
2. Assistant Principal	141	1.57	.84	320	1.99	1.08	.00**	167	1.64	.96	.44	135	2.40	1.08	.00**
3. Department Head	141	1.58	.92	301	2.48	1.25	.00**	167	2.34	1.23	.00**	134	2.64	1.26	.00**

*$\underline{P} > .05$.
**$\underline{P} > .01$.

assistant principal position. Similar differences were found for the administrators and male teachers. No significant differences were found among administrators and female teachers with regard to the assistant principal position. The null hypothesis was rejected with regard to the position of assistant principal when the following groups were compared: teachers and administrators, and administrators and male teachers. It was accepted when female teachers and administrators were compared. Mean ratings were higher for male teachers than for administrators. This indicates that male teachers are more likely to aspire to the assistant principal position than female teachers.

Significant differences were found in the mean ratings for all comparison groups with regard to the department head position. Therefore, the null hypothesis was rejected with regard to this position. Mean ratings for teachers, particularly male teachers, were higher than those for administrators. This indicates that teachers, particularly male teachers, are more likely to aspire to the department head position than administrators.

Positions in correctional institutions and practical nursing schools. The administrative positions in vocational education within correctional institutions and practical nursing schools include coordinator or principal, and assistant principal. Respondents were asked if they would aspire to these positions. Results of *t*-tests comparisons for differences in means with regard to these positions are presented in Table 32.

TABLE 32

t-TESTS FOR DIFFERENCE IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO ASPIRATIONS TOWARD ADMINISTRATIVE POSITIONS IN CORRECTIONAL INSTITUTIONS AND PRACTICAL NURSING SCHOOLS

Positions	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2		N	$\bar{X}$	s^2		N	$\bar{X}$	s^2	
1. Coordinator or Principal	145	1.59	1.13	302	1.37	.77	.04*	164	1.35	.83	.04*	138	1.40	.70	.09
2. Assistant Principal	144	1.39	.68	301	1.36	.74	.71	164	1.34	.78	.52	137	1.39	.70	.94

*P > .05.
**P > .01.

No significant differences were found when male teachers and administrators were compared with regard to their aspirations toward the coordinator or principal position. The null hypothesis was rejected for the principal position with regard to male teachers and administrators. Significant differences were found when administrators and teachers were compared. They were also found when female teachers and administrators were compared. The null hypothesis was accepted for the coordinator or principal position when the comparison groups were administrators and teachers and/or female teachers and administrators. Mean ratings were higher for administrators than for teachers. This indicates that administrators are more likely to apply for these positions than teachers.

No significant differences were found in aspirations toward the assistant principal position. The null hypothesis was accepted for all comparison groups with regard to this position.

Public school system position. The administrative positions in vocational education in public school systems in Kentucky are director or coordinator of vocational education, and supervisor of a vocational program area. Respondents expressed their aspirations to these positions. Results of *t*-test comparisons for differences in means with regard to these positions are presented in Table 33.

An examination of aspirations toward the position of director or coordinator of vocational education revealed that there are significant differences at the .05 level in the aspirations of administrators and teachers and especially those of administrators and female teachers. Significant differences were not found when comparisons were made for male teachers and administrators, and the

TABLE 33

t-TESTS FOR DIFFERENCE IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO ASPIRATIONS TOWARD ADMINISTRATIVE POSITIONS IN PUBLIC SCHOOL SYSTEMS

Positions	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2		N	$\bar{X}$	s^2		N	$\bar{X}$	s^2	
1. Director or Coordinator of Vocational Education	144	2.43	1.29	304	2.18	1.52	.04*	166	2.13	1.16	.03*	138	2.23	1.14	.16
2. Supervisor of Vocational Program Area	145	2.28	1.23	302	2.31	1.19	.85	166	2.25	1.20	.82	136	2.38	1.18	.55

*P > .05.
**P > .01.

null hypothesis was accepted with regard to this comparison. The null hypothesis was rejected with regard to comparisons for administrators and teachers and administrators and female teachers. Mean ratings were higher for administrators than for teachers, indicating that administrators are more likely to apply for these positions than teachers, especially female teachers.

No significant differences were found in aspirations toward the position of supervisor of vocational program area. The null hypothesis was accepted for all comparison groups with regard to this position.

College and university level positions. College and university level administrative positions in vocational education include director of vocational education and program coordinator or supervisor. Aspirations to these positions were expressed. Results of *t*-tests for differences in mean ratings of administrators and teacher groups are presented in Table 34.

Significant differences were found in the mean overall ratings for all comparison groups with regard to the director of vocational education position. Differences were significant at the .01 level. The null hypothesis was rejected for the position of director of vocational education. Mean ratings were higher for administrators than for teachers, indicating that administrators would be more likely to apply for this position than teachers.

Significant differences were found when groups of administrators and teachers and groups of female teachers and administrators were compared with regard to the program coordinator or supervisor position. No significant differences were found in the mean overall ratings for male teachers and administrators with regard to this position.

TABLE 34

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO ASPIRATIONS TOWARD ADMINISTRATIVE POSITIONS IN COLLEGES OR UNIVERSITIES

Positions	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2		N	$\bar{X}$	s^2		N	$\bar{X}$	s^2	
1. Director of Vocational Education	144	2.19	1.15	304	1.71	.93	.00**	166	1.60	.90	.00**	138	1.85	.97	.01**
2. Program Coordinator/ Supervisor	145	2.15	1.04	301	1.83	1.04	.00**	165	1.75	1.03	.00**	136	1.93	1.05	.06

*P > .05.
**P > .01.

Mean ratings for administrators were higher than those for teachers. This indicates that administrators and female teachers are more likely to apply for this position than the total group of teachers. The null hypothesis was accepted for the program coordinator position with regard to administrators and male teachers. It was rejected with regard to comparisons with administrators and teachers and with female teachers and administrators.

Community college level positions. Program coordinator or supervisor is the major administrative position in vocational education at the community college level. Respondents indicated aspirations to this position. Results of t-tests for differences in mean ratings of administrators and teacher groups are presented in Table 35.

Significant differences were found in the mean overall ratings for administrators and teachers with regard to this position. They were also found when administrators and male teachers were compared. Mean ratings were higher for administrators than for teachers. This indicates that administrators are more likely to aspire to this position than teachers, and the null hypothesis was rejected for this position with regard to these groups. No significant differences were found in the aspirations of administrators and female teachers. The null hypothesis was rejected with regard to this comparison.

Applications for Administration

Are the results of administrator applications different from those of teachers? The following hypothesis was designed to answer

TABLE 35

t-TESTS FOR DIFFERENCES IN MEAN RATINGS OF ADMINISTRATORS AND TEACHER GROUPS WITH REGARD TO ASPIRATIONS TOWARD COMMUNITY COLLEGE ADMINISTRATION

Position	Administrators vs. Teachers							Administrators vs. Female Teachers				Administrators vs. Male Teachers			
	Administrators			Teachers			t	Female Teachers			t	Male Teachers			t
	N	$\bar{X}$	s^2	N	$\bar{X}$	s^2		N	$\bar{X}$	s^2		N	$\bar{X}$	s^2	
Program Coordinator/ Supervisor	144	2.26	1.10	305	2.00	1.11	.03*	167	2.04	1.20	.09	138	1.97	.99	.03*

*P > .05.
**P > .01.

this question. H_{07}: There will be no significant differences in the mean administrative applications of administrators and teachers as indicated by the 26-item Application for Administration Scale.

Only seven teachers and 18 administrators indicated information regarding their applications for administrative positions in vocational education. Due to the small numbers involved, hypotheses regarding applications for administrative positions were not tested.

SUMMARY OF FINDINGS

Interpretation of the data revealed a number of findings. These findings are summarized in seven major sections as follows: spouse support, attitudes regarding current position, employment concerns, sex-role attitudes, self-esteem, aspirations, and applications.

Spouse Support

Both administrators and teachers indicated that they received a high degree of spouse support for educational activities and professional career activities.

Attitudes Regarding Current Professional Position

General attitudes regarding position. Administrator and teacher groups indicated that they were very satisfied with the current professional position. However, significant differences were found when these groups were compared. Teachers expressed less satisfaction than that expressed by administrators.

Salary or wages. All groups of teachers and administrators indicated that they were not totally satisfied with their salary or wages. Administrators indicated greater mean dissatisfaction than that expressed by teachers and that expressed especially by female teachers. Male teachers and administrators held similar attitudes with regard to their salary or wages.

Work hours. All groups indicated that they liked the work hours associated with the current position.

Working conditions. Administrators and teacher groups differed with respect to their attitudes toward the working conditions associated with the current position. Teacher groups expressed greater dissatisfaction with working conditions than that expressed by administrators.

Treatment by supervisor. Administrators and teachers, especially male teachers, differed with respect to their attitudes toward treatment by the supervisor on the current position. Teachers, particularly male teachers, expressed greater dissatisfaction with respect to this issue than that expressed by administrators.

Opportunity to advance. All groups of teachers and administrators were fairly well satisfied with their opportunity to advance. Teachers expressed less satisfaction with this issue than that expressed by administrators.

Relations with co-workers. All groups were satisfied with their co-worker relations. However, teachers and female teachers indicated greater mean dissatisfaction than that expressed by administrators.

Health benefits. Teachers and administrators were fairly well satisfied with their health benefits. However, male teachers expressed less satisfaction with this item than other groups.

The work itself. All groups were very well satisfied with the following aspect of their current position: the work itself. No differences were found for the groups with respect to this issue.

Employment Concerns

Job-related problems. Administrators and teacher groups did not indicate that they found the following job-related issues to be a problem: job is too difficult for me; job doesn't really use my skills; and discrimination because of race. Male teachers and administrators indicated to a greater extent than female teachers that they face the following problem: job doesn't pay enough. Female teachers indicated to a greater extent than male teachers or administrators that they face the job-related problem: job is physically tiring. Teacher groups indicated that they face the following job-related problems to a greater extent than that expressed by administrators: need for full-time work; would like to quit, but can't afford to; would prefer part-time work; and, job is boring. Teachers, particularly male teachers, indicated that they face layoffs and unemployment to a greater extent than administrators. Teachers, particularly female teachers, indicated that they face the following job-related problems to a greater extent than administrators: discrimination because of sex and sexual harassment on the job.

Home-related problems. Teachers, particularly female teachers, indicated that they face the following home-related concerns to a greater extent than administrators: spouse doesn't want me to work; the burden of the job combined with the family; and, need more help at home. Teachers, particularly male teachers, indicated that they face problems with teenage children to a greater extent than administrators.

Personal problems. Administrators and teachers indicated that the following personal employment-related concerns were not problems for them: I lack self-confidence to get ahead to my job; and transportation. Teachers indicated that they face the following to a greater extent than administrators: children are too young for my peace of mind; and lack job counseling. Teachers (particularly female teachers) indicated that they face the following to a greater extent than administrators: need child care; no time to continue my education; and, no time for leisure. Teachers (particularly male teachers) view as more of a problem than administrators the personal employment-related concern: no chance to train for a better job.

Other problems. Administrators and teachers specified other problems which they personally faced as an employee and the extent to which they were faced. Other issues were occasionally a problem both for teacher groups and administrators. However, significant differences did not exist in the degree to which these problems were faced.

Sex-Role Attitudes

Administrators and teachers differ with regard to their sex-role attitudes. Male teachers and administrators have significantly higher mean masculinity scores than that expressed by female teachers. Female teachers expressed higher femininity scores than male teachers and administrators. Significant differences did not exist in the mean femininity scores of administrators and male teachers. Administrators and female teachers differ with respect to their androgyny scores, but administrators and male teachers have similar androgyny scores. Male teachers and administrators differ in terms of their social desirability scores, but female teachers and administrators do not.

Self-Esteem Scores

Significant differences were not found in the self-esteem scores of teachers and administrators. Self-esteem was measured through the Texas Social Behavior Inventory Form A.

Aspirations

State Department of Education. Significant differences were found in the aspirations of administrators and teacher groups with regard to aspiration to most of the positions in the State Department of Education. No significant differences were found when administrators and male teachers were compared with respect to the unit assistant director position and the unit supervisor position. No significant differences were found when the total teacher group and administrators were compared with respect to the unit supervisor position. In addition, no significant differences were found between administrators and teacher groups with respect to the unit coordinator position.

Mean ratings for administrators were higher than those for teacher groups with regard to each position at the State Department of Education level. This indicates that administrators express greater likelihood of aspiration toward administrative positions at the State Department of Education than that expressed by teachers.

Regional level. Administrators expressed higher aspirations toward positions at the regional level than that expressed by teachers. Significant differences were found in all but three comparisons. No significant differences were found with male teachers and administrators were compared with respect to the regional industrial coordinator and regional CETA coordinator. No significant differences were found when the total group was compared with administrators.

State vocational school level. Administrators and male teachers were more likely to aspire to the principal and assistant principal positions than female teachers. Male and female teachers were more likely to aspire to the department head position.

Area vocational center positions. Administrators were more likely to aspire to the coordinator or principal position than teacher groups. Both male and female teachers expressed higher aspirations to the assistant principal and department head positions at this level than that expressed by administrators.

Correctional institutions and practical nursing schools. Administrators and male teachers expressed higher aspirations to the coordinator or principal position than that expressed by female teachers. Significant differences did not exist in the aspirations of administrators and teachers with respect to the assistant principal position.

Public school system positions. Administrators and male teachers expressed higher mean aspirations to the director or coordinator position than that expressed by female teachers. There were no significant differences in the mean aspiration scores with respect to the position of supervisor of vocational program area.

University level positions. Administrators expressed higher mean scores with respect to aspiration toward the position of director of vocational education. Male teachers and administrators expressed higher mean scores than that expressed by female teachers with regard to aspiration to the program coordinator position.

Community college level. Significant differences were found in the aspirations of male teachers and administrators. The administrators expressed greater mean scores with respect to aspiration. No significant differences were found when administrators and female teachers were compared with respect to aspiration to the program coordinator position.

Application for Administration

Hypotheses were not tested with respect to application for administration because only a small number of individuals indicated that they aspired to these positions. Seven teachers and 18 administrators indicated information in this section. Information regarding teacher applications was presented in Phase II. Information regarding administrator applications is presented herein.

Eighteen administrators completed the information regarding application for administration. Seventeen administrators indicated that they had applied for administrative positions other than the one that they currently hold. One administrator indicated that he had applied for his current position previously and it had not been offered. He reapplied at a later date; it was offered, and he accepted. Some administrators indicated that they had applied for more than one position.

Applications occurred from 1968 through 1978. The administrators indicated that they had applied for positions at the following levels: State Department of Education, regional state vocational schools, and local schools.

Five applications were listed at the State Department level. One male indicated that he had applied for the position of Assistant Superintendent, Bureau for Vocational Education. One female administrator indicated that she had applied for a division director position. Two male administrators and one female administrator indicated that they had applied for unit director positions.

Nine applications were listed at the regional level. Four persons had applied for positions as regional directors. This included three males and one female. Four males had applied for positions as regional program coordinators, and one male had applied for a regional industrial coordinator position.

Four applications were listed for state vocational schools. They included two males applying for positions as principals plus one male and one female applying for the assistant principal position.

One application was listed at the local school level. It came from a female applying as a supervisor of a vocational program area.

For 13 of the positions, males indicated that they were not offered the job. One male indicated that he withdrew his application. Another indicated that he refused the position because it required too many hours for the amount of pay.

Female administrators indicated that they were not offered the position in three cases. In two cases, females did not accept the job. They indicated that they refused it for the following reasons: (1) "I was required to quit my current position before the paperwork was completed, and I did not wish to do this." (2) "It required a move but offered no salary change."

Comments made by administrators regarding aspirations and applications included the following: From a female administrator: "I applied for a teaching job and was recruited for unit supervisor. Otherwise, I would probably never have sought the position." Male administrators made these comments: (1) "My application was submitted. I was placed on the State Register; two positions within the region were filled yet I was never interviewed. In other words, the system doesn't work. Politics prevail without regard to qualifications." (2) "Even though I indicated the likelihood of seeking certain positions, I realize the fruitlessness due to a lack of a college degree." (3) "It is my opinion and personal experience that you are asked to fill positions if you are qualified. You do not have to apply and I shall not apply unless asked to do so."

CONCLUSIONS

Analysis of the findings of this study provided a basis for the following conclusions:

1. Administrators and teachers receive a high degree of spouse support for educational activities and professional career activities. Therefore, it would appear that spouses do not object to these activities.
2. Administrators and teachers are very satisfied in their current professional positions.
3. Administrators and teachers are not totally satisfied with the salary or wages associated with their current professional position.
4. Administrators and teachers are satisfied with the following aspects of their current professional position: work hours and the work itself.
5. Administrators and teachers are satisfied with the following aspects of their current professional position: working conditions, treatment by supervisor, relations with co-workers, health benefits, and opportunity to advance. However, significant differences were found in the mean ratings with respect to these issues when administrators and teacher groups were compared.

6. Administrators and teachers do not experience the following issues as job-related employment concerns: job is too difficult for me; job doesn't use my skills; and discrimination because of race. However, administrators and teachers vary in the extent to which they face other job-related employment concerns.
7. Administrators and teachers vary in the extent to which they face home-related employment concerns.
8. The following personal employment concerns are not problems for administrators and teacher groups: I lack self-confidence to get ahead on my job and transportation. There is a difference in the degree to which teacher groups and administrators face other personal employment concerns.
9. Other problems were occasionally an employment concern for administrators and teacher groups.
10. Teachers and administrators differ with regard to their sex-role attitudes.
11. Teachers and administrators do not differ significantly with respect to their self-esteem as measured by the Texas Social Behavior Inventory.
12. Both administrators and teacher groups expressed low aspirations to administration in vocational education. However, administrators are more likely than teachers to aspire to most of the administrative positions in vocational education. Teachers, especially female teachers, are more likely to aspire to the lower-level administrative positions.

RECOMMENDATIONS

Based on the findings and conclusions reported in this phase of the research, the following recommendations are proposed:

1. Additional research should be conducted in order to determine the relationships between job satisfaction of administrators and their aspirations and applications.
2. Administrators and teachers differ in terms of their perceptions of certain employment concerns. Emphasis may need to be placed on helping both administrators and teachers overcome these employment concerns and/or learn to cope with them.
3. Both teachers and administrators are concerned with the salary associated with their current professional position. In addition, some individuals indicated that they would not accept certain administrative positions due to low salary or the fact that a move was required and the salary was not enough to compensate for the move. Therefore, it is recommended that a study be made of salary schedules for teachers and administrators at various levels of employment.
4. Additional research should be conducted regarding the sex-role attitudes of administrators and how this influences performance.
5. Additional research should be conducted to determine reasons for the low aspirations of administrators and

teachers. Such research should be concerned with the following issue: Do teachers and administrators have low aspirations in general or only low aspirations toward administrative positions in vocational education?

6. This study should be replicated with administrators and teachers in other states and regions of the nation to aid in determining if the findings are descriptive only of Kentucky educators.

SUMMARY

The purpose of this phase of the research was to identify the attitudes, perceptions, and aspirations of individuals who hire administrators for vocational education. A one-shot survey design was utilized with a mail questionnaire.

The population consisted of individuals who hire vocational educators at the state, regional, local, community college, college, and university levels in Kentucky. The entire population was studied. Responses were received from 82 percent of the population. A 78 percent usable return was yielded representing 151 administrators (133 males and 18 females).

Data were analyzed by computer. Comparisons were made between the administrators and teachers--a potential pool of administrators. In order to examine the hypotheses, t-tests for differences between means were conducted. The .05 level of significance was used as a basis for acceptance or rejection of the null hypothesis. Significance at the .01 level was also noted.

Interpretation of the data revealed a number of findings. Both administrators and teachers indicated that they received a high degree of spouse support for educational and professional career activities. There were differences in administrator and teacher attitudes regarding aspects of their current professional position and employment concerns.

Administrators and teachers also differ with regard to their sex-role attitudes as measured by the Bem Sex-Role Inventory. Significant differences were not found in the self-esteem scores of teachers and administrators as measured by the Texas Social Behavior Inventory Form A.

Both administrators and teachers expressed low aspiration toward administration in vocational education. However, administrators are more likely than teachers to aspire to most of the administrative positions in vocational education. Teachers, especially female teachers, are more likely to aspire to the lower-level administrative positions.

Based on the findings and conclusions reported in this phase of the research, the following recommendations were proposed:

1. Additional research should be conducted in order to determine the relationships between job satisfaction of administrators and their aspirations and applications for administration.
2. Administrators and teachers differ in terms of their perceptions of certain employment concerns. Emphasis may need to be placed on helping both administrators

and teachers overcome these employment concerns and/or learn to cope with them.

3. Both teachers and administrators are concerned with the salary associated with their current professional position. In addition, some individuals indicated that they would not accept certain administrative positions due to low salary or the fact that a move was required and the salary was not enough to compensate for the move. Therefore, it is recommended that a study be made of salary schedules for teachers and administrators at various levels of employment.
4. Additional research should be conducted regarding the sex-role attitudes of administrators and how this influences performance.
5. Additional research should be conducted to determine reasons for the low aspirations of administrators and teachers. Such research should be concerned with the following issue: Do teachers and administrators have low aspirations in general or only low aspirations toward administrative positions in vocational education?
6. This study should be replicated with administrators and teachers in other states and regions of the nation to aid in determining if the findings are descriptive only of Kentucky educators.

RESEARCH COMPONENT

PHASE IV: POLICIES AND PRACTICES OF EMPLOYERS WHO HIRE INDIVIDUALS FOR ADMINISTRATIVE POSITIONS IN VOCATIONAL EDUCATION IN KENTUCKY REGARDING THE EMPLOYMENT OF WOMEN FOR ADMINISTRATIVE POSITIONS

By: Carolyn G. Litchfield

INTRODUCTION

- Statement of the Problem

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- The Sample
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INTERPRETATION OF THE DATA

- How Individuals Became Administrators
- General Employment Policy and Procedure
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- Recruitment
- Selection
- Promotion
- Status of Women in the Organization
- Extent of Female Applicants
- Additional Comments Regarding Employment Policies and Practices

SUMMARY OF FINDINGS

How Individuals Became Administrators

General Employment Policy and Procedure

Affirmative Action

Recruitment and Selection

Promotion

Status of Women in the Organization

Extent of Female Applicants

Additional Comments Regarding Employment Policies and Procedures

CONCLUSIONS

RECOMMENLATIONS

INTRODUCTION

What are the policies and practices of employers who hire individuals for administrative positions in vocational education in Kentucky regarding the employment of women for these positions? The purpose of this phase of the research was to examine these employment policies and practices through literature review and to interview individuals who hire administrators for vocational education in Kentucky. Interviews were conducted without revealing to the respondents the full intent of the study. Interviewers told participants that organizational policies and practices were being studied.

Statement of the Problem

The purpose of this phase of the research component was to identify employment policies and practices which may act as barriers to the employment of women as administrators. Specifically, answers to the following questions were sought as they relate to the employment of women in vocational education administration:

1. What are the expressed employment policies and practices of employers?
2. Do the expressed policies and practices of employers differ from those specified in policy and procedure manuals?

METHODOLOGY AND DESIGN

The Population

The population for this phase consisted of employers who hire individuals for administrative positions in vocational education at state, regional, local, community college, college, and university levels in Kentucky. This included a total of 118 employers (104 males and 14 females) who have responsibility for hiring and promotion decisions regarding administrators.

The population was identified through the Kentucky Vocational Education Directory (1977) and the Personnel Directory (1977) of the University of Kentucky Community College System.

The Sample

The sample was comprised of the entire population--an intact group of 118 individuals who have responsibility for hiring and promotion at the state, regional, local, community college, college, and university levels in Kentucky. The sample included administrators in the Kentucky Bureau of Vocational Education, regional directors, principals of state vocational schools, local vocational education directors, school superintendents, personnel directors, community college administrators, and college and university administrators. Principals or coordinators of area vocational education centers were not included.

Design for the Study

A one-shot survey design was utilized. The study was conducted through structured interviews.

Instrumentation

Policy and procedure manuals were reviewed in order to identify specific policies and procedures regarding the employment of administrators in vocational education. Using this information, a series of questions were developed for use in interviewing administrators. The series of questions was reviewed by a panel of experts, and a structured interview schedule was developed with procedures for conducting the interviews. In addition, a data sheet was developed to obtain information from administrators regarding the extent of applicants for administrative positions in vocational education.

A pilot study was conducted in order to refine the structured interview schedule and the data sheet. This study was also conducted in order to test the interview procedures. The pilot study was conducted in Lexington, Kentucky, utilizing individuals who had served in administration at the following levels: state, regional, local, community college, college, and university.

After discussing the results of the pilot study, the project staff endorsed the interview schedule, the data sheet, and specific procedures for the interview study. Procedures were also developed for training the interviewers.

The final interview schedule included information regarding the following: how individuals came to be administrators, general employment policy and procedure, affirmative action, recruitment, selection, promotion, and the status of women in the organization. It also contained a technique for obtaining data regarding the extent of female applicants utilizing the data sheet. This technique enabled the administrator to provide information regarding the extent of female applicants if the administrator had that information at hand during the interview. If that information was not readily available, the administrator was provided a data sheet and a self-addressed envelope and asked to compile the information and return it to the project director. The interview schedule also allowed the administrator to make open comments regarding employment policies and practices in the organization. The complete interview schedule and data sheets appear in Appendix H. Letters and other materials used in data collection are presented in Appendix I.

Data Collection

Interviews were used in order to obtain data regarding the policies and practices of employers who hire individuals as administrators for vocational education. The interviews were conducted by members of the project staff and individuals hired particularly for this purpose.

In order to assure that all interviews would be conducted in a consistent manner, a training session was held for the interviewers. (See training session program, Appendix J.) Interviewers also participated in mock interview sessions with members of the project staff. A follow-up training session was held to answer questions that developed as a result of the mock interviews and to provide additional information to the individuals selected as interviewers.

Several procedures were taken in order to schedule the interviews. First, a magnetic card typewriter was utilized to type an original letter to each administrator included in the interview sample. The letter stated that a study was being conducted regarding employment policies and practices in vocational education. It was also used to inform administrators that a member of our project staff would be contacting them via telephone in order to schedule an interview.

Next, a telephone script was developed for use in contacting administrators regarding interview appointments. A member of the project staff used this script to contact each administrator regarding an interview appointment. After interviews were scheduled, follow-up letters were sent to confirm appointments, and then the interviews were conducted. Each interview was followed by a letter thanking individuals for participating in the project. If necessary, this letter also requested that administrators return the data sheet regarding the extent of female applicants.

Interviews were scheduled with 89 percent of the population. However, 100 usable interviews were completed with the administrators as follows: 29 from the State Department of Education; 14 from state vocational schools; 12 at the regional level; 10 at the local school level; 20 at the college and university level; and 15 at the community college level. This represented 85 percent of the population and included 91 men and 9 women.

Data Analysis

Data was hand tabulated by level and totals were computed for the entire group of respondents. Descriptive statistics and cross tabulations were utilized.

INTERPRETATION OF DATA

In order to present an interpretation of the data, the following pattern is used. Each survey topic is presented, followed by a description of the data obtained. The findings are presented in several sections as follows: how individuals became administrators; general employment policy and procedure, affirmative action, recruitment, selection, promotion, status of women in the organization, extent of female applicants, and additional comments regarding employment policies and practices.

How Individuals Became Administrators

Individuals indicated that they became administrators through two means: they were contacted and offered the position (53 percent) or they sought the position (47 percent). They took the following steps in order to obtain the position: Degree--Entry--Promotion (69 percent); Entry--Degree--Promotion (19 percent); and, Degree--Promotion (12 percent).

General Employment Policy and Procedure

Employment policy and procedure. The majority of the participants indicated that there are set procedures to follow in order to hire individuals for administrative positions in vocational education.

A total of 92 percent of the respondents indicated that such procedures existed and 8 percent indicated that they did not.

The participants who indicated that set procedures existed were asked to specify the nature of such procedures. A state system of procedures was indicated by 42 individuals, and 50 indicated that a local system of procedures was used. A total of 62 participants indicated that these procedures were in writing, but only 7 participants were able to provide a copy of the procedures. Twenty-eight participants indicated that the procedures were not in writing and 2 indicated that they did not know if the procedures were in writing.

The 92 participants who indicated that set procedures existed were also asked to indicate how the policies and procedures worked for them. Responses were as follows: excellent (27); good (38); fair (17); and, don't know (8).

As indicated in Table 36, the majority of the participants indicated that attempts had been made within the organization to review the following items to consider sexist language or implications that they might contain: policy and procedure manuals, job descriptions, employment applications, and recruitment materials. However, many individuals indicated that they did not know if such efforts had occurred.

Participants were asked if an analysis had been made of current employment patterns related to sex, race, position, and salary. Most of the participants indicated that this had been done, as illustrated through Table 37. However, a large number indicated that such analyses had not occurred or that they were not aware that such analyses had occurred.

TABLE 36

ATTEMPT TO REVIEW ITEMS FOR SEXIST LANGUAGE OR IMPLICATIONS

	Has Attempt Been Made?		
Item	Yes Percent	No Percent	Don't Know Percent
Policy and procedure manuals	67	15	18
Job descriptions	68	15	17
Employment applications	60	22	18
Recruitment materials	54	20	26

TABLE 37

ANALYSIS OF CURRENT EMPLOYMENT PATTERNS

	Has Analysis Been Made?		
Item	Yes Percent	No Percent	Don't Know Percent
Sex	48	37	15
Race	55	34	11
Position	49	38	13
Salary	47	43	10

Policies regarding women. Participants were asked if they were aware of barriers to the employment of women in administrative positions in vocational education. The majority of the participants (76 percent) indicated that they were not aware of barriers. Twenty-four percent of the participants indicated that they were aware of barriers and specified one or more barriers to the employment of women as follows: stereotypes (13 percent), lack of qualifications and training (10 percent), lack of mobility (2 percent), concentration of women in traditional areas (1 percent), and lack of applications (1 percent).

A majority of the participants (53 percent) indicated that they had not made attempts to identify areas where women were concentrated or underutilized or the extent of underutilization. When asked why this had not been done, the following reasons were specified: not needed (36 percent); time restraints (1 percent); emphasis is on student trends (1 percent); not within my job description (1 percent); and don't know (13 percent). Fourteen individuals (14 percent) did not provide a reason. While 39 percent of the participants indicated that such attempts had been made, 12 percent could not identify what was found. Of the 27 percent specifying what was found, the following responses were provided: women are in stereotyped areas and teaching (15 percent); few women are in administration and higher levels (11 percent); and our survey was informal in nature (1 percent).

The majority of the participants (60 percent) indicated that it was easy to find women who are qualified to be administrators.

Only 35 percent indicated that it was difficult to find women who are qualified and specified the following reasons for this difficulty: not enough trained (23 percent); attitude of the women (9 percent); women lack mobility (5 percent); salaries (3 percent); women don't apply (1 percent); and can't locate the women (1 percent). Only 5 percent indicated that they did not know if it was easy or difficult to locate qualified women to be administrators.

Affirmative Action

Most of the participants (43 percent) indicated that the support for affirmative action was very serious. Other responses were serious (28 percent); not at all serious (21 percent); and don't know (8 percent).

The majority of the participants (83 percent) indicated that the organization had designated an affirmative action coordinator, and they were able to name the coordinator. However, there were discrepancies in the names provided at the State Department level. Discrepancies also existed in answers provided with individual systems of the local school districts and universities.

When questioned regarding the job description of the affirmative action coordinator, 74 percent indicated some job duties,but only 49 percent indicated that a job description existed. Fifty-four percent of the participants indicated that the coordinator performed other duties in addition to affirmative action work.

Forty-six percent of the participants indicated that they were not aware of the procedures followed in order to handle affirmative action complaints. Other participants indicated that complaints were handled in the following manner: report them to affirmative action coordinator (36 percent); same as other complaints (15 percent); and legal means (3 percent).

Recruitment

The majority (75 percent) of the participants indicated that the organization helped the people who hire administrators apply affirmative action. When these participants told interviewers more about this procedure, 35 percent indicated that these individuals are reminded of affirmative action and 19 percent said that they trained them in affirmative action. A total of 14 indicated that they did not know how this assistance was provided, and 7 percent did not specify further information. A total of 16 percent of the participants indicated that this assistance was not provided and 9 percent were not aware if such assistance was provided.

Only 25 percent of the participants indicated that individuals are not actively recruited for administrative positions in vocational education. The majority (75 percent) of the respondents indicated that persons were actively recruited for administration and 74 percent were able to specify who recruits individuals. When asked to indicate if women were recruited for administrators, the following responses were received: yes (50 percent), the same as men (6 percent), when they qualify (1 percent), and, don't know (2 percent).

When asked if the organization is doing anything to publicize or promote opportunities for women in administrative positions in vocational education, the participants responded as follows: no (53 percent), don't know (5 percent), and, yes (14 percent). Four percent of the participants answering yes were not aware of how opportunities were publicized or promoted. Others indicated that the following techniques were used: conferences and meetings, encouragement, eliminating stereotyping in materials; verbal commitment; work with colleges and universities, particularly women's colleges; women hired for balance in administration; and, through research. Three percent of the participants indicated that they did not know how administrative vacancies were announced. Other participants indicated that they used a variety of techniques to announce such vacancies as outlined in Figure 2.

The majority of the participants (81 percent) indicated that they encouraged people to seek administrative positions. These participants further indicated that this was done in the following ways: informally (66 percent), providing opportunities for education (6 percent), announcing opportunities for education (3 percent), and, don't know (6 percent).

Selection

Participants indicated that the essential qualifications for selection of administrators for vocational education are the items outlined in Figure 3. Included are a degree in vocational education administration, ability to work with people, technical experience, past performance, administrative experience, communication skills, teaching experience, and, knowing people at the top.

When asked to what extent women are included in the decision-making process related to selecting administrators for vocational education, most of the participants (32 percent) indicated "very little."

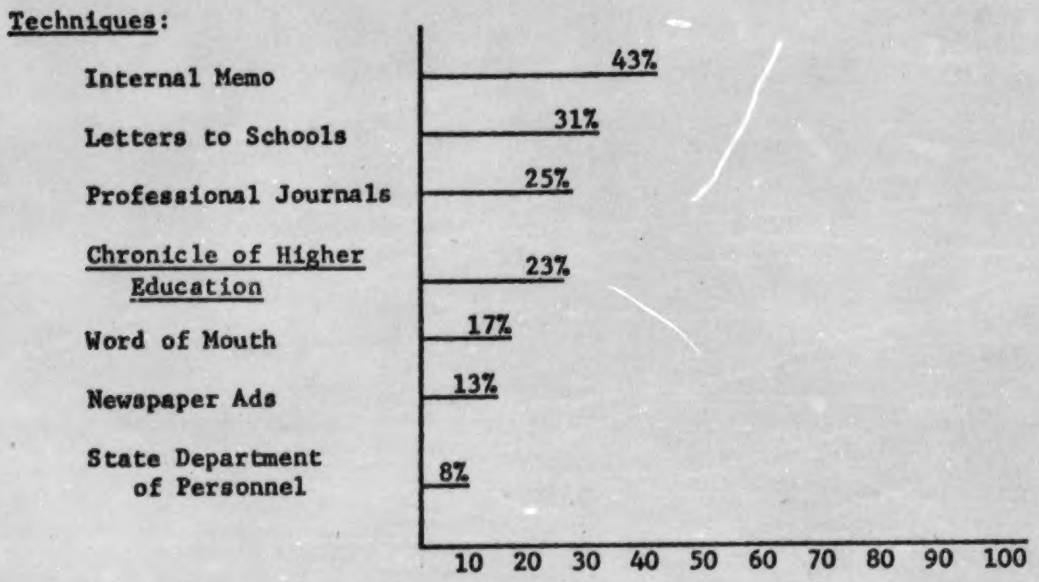

Figure 2. Techniques Used to Announce Vacancies in Administration for Vocational Education

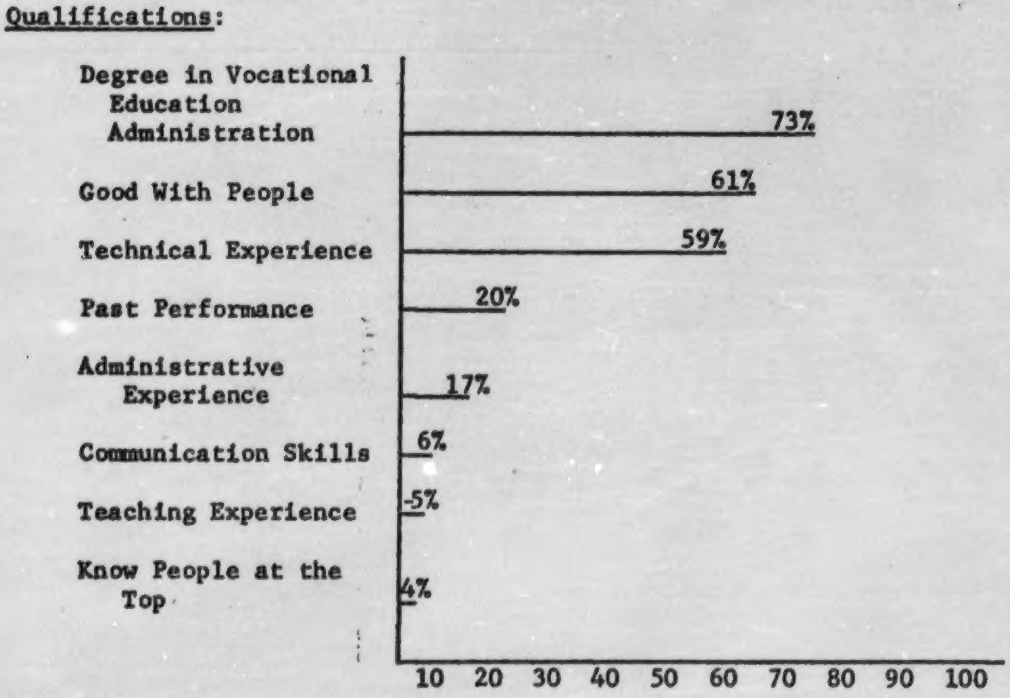

Figure 3. Essential Qualifications for Selection of Administrators for Vocational Education

Other responses were as follows: very much (14 percent), somewhat (24 percent), not at all (19 percent), and, don't know (11 percent).

Ninety-five percent of the participants were able to indicate individuals or groups who made final decisions regarding hiring. However, there were discrepancies in the information obtained at all levels.

A majority of the participants indicated that the following items were required: personal histories, background requirements, specific education experience, specific work experience, and application forms. A majority of the participants indicated that paper-and-pencil tests and qualifying exams were not required. Most participants also indicated that interview rating forms were not utilized. For more information regarding the items required of individuals seeking administrative positions in vocational education, see Table 38.

Promotion

When participants were asked to identify the criteria used for promotion to administrative positions in vocational education, the following responses were provided: same as for hiring administrators (68 percent), past performance (31 percent), good with people (9 percent), and, don't know (7 percent). The majority of the participants (77 percent) indicated that an administrative internship program did not exist. Only 22 percent indicated that such a program existed, and 1 percent did not know if a program existed.

Participants were asked if "job enrichment" or "career ladder" programs existed within the organization. Two percent of the

TABLE 38

ITEMS REQUIRED OF INDIVIDUALS SEEKING ADMINISTRATIVE POSITIONS IN VOCATIONAL EDUCATION

LEVELS	State Department			Regional			State Vocational Schools			Local School Districts			Colleges and Universities			Community Colleges			Total		
Items:	Yes	No	Don't Know	Yes	No	Don't Know	Yes	No	Don't Know	Yes	No	Don't Know	Yes	No	Don't Know	Yes	No	Don't Know	Yes	No	Don't Know
Personal Histories	6	22	1	8	3	1	10	3	1	8	2	0	19	1	0	12	3	0	63	34	3
Background Requirements	9	19	1	10	1	1	10	1	3	10	0	0	19	0	1	13	1	1	71	22	7
Specific Education Requirements	28	1	0	12			13		1	10			19		1	15			97	1	2
Specific Work Experience	29	0	0	12			12	1	1	10			19		1	15			97	1	2
Application Forms	28	1		12			13		1	9	1		8	12		15			95	3	2
Interview Rating	6	20	3	5	7		5	7	2	9	1		17	3		4	11		46	49	5
Paper-and-Pencil Test	3	25			12			13	1		10			20			15		3	95	2
Qualifying Exams	11	18			12			12	1		10			20			15		12	87	1

participants were not aware of such programs. A total of 41 percent indicated that these programs did not exist and specified the following reasons: not needed (8 percent), not formal (6 percent), no particular reason known for not having a program (5 percent), now developing (1 percent). organization too small for program (1 percent), promotion from within not necessarily a good idea (1 percent). Fifteen percent of the participants did not specify a reason for not having an advancement program. Fifty-eight percent of the participants indicated that an enrichment program existed. They described the enrichment program as follows: encouragement of individuals to return to school (23 percent), personnel development (11 percent), internships (9 percent), in-service and other workshops (5 percent), staff exchange (3 percent), advancement opportunities (1 percent), and salary increases (1 percent). In addition, 2 percent of the participants indicated that they could not specify the nature of the program. One percent indicated that a program existed on paper but did not work.

A majority of the participants (77 percent) indicated that a particular effort had not been made to direct these programs to the needs of women. Three percent of the participants did not know if programs were directed to the needs of women. Eight percent of the participants indicated that efforts were made to direct these programs to the needs of women, but 5 percent could not identify how this was done. Others indicated that this was done through workshops (2 percent) and attempting to identify interested women.

Status of Women in the Organization

Only 14 percent of the participants indicated that women were not serving in administrative positions in their organization. The majority (86 percent) reported that women served in these positions. They reported a total range of from 1 to 34 administrators, and 1 percent of the participants was unable to indicate the number of women in the organization. Participants indicated that women served primarily in entry level administrative positions.

The participants who indicated that women were serving as administrators were asked if the women were encouraged to apply for higher positions in administration. Fifty-five percent indicated that women were encouraged to seek higher positions. Seven percent indicated that they were encouraged the same as anyone else. Four percent indicated that women were encouraged on an individual basis depending upon their personal abilities. Three percent of the participants did not know if women were encouraged, and 17 percent said they were not encouraged.

Participants who indicated that women served in administrative positions were asked about the working relations of women administrators with the rest of the staff. They were also questioned regarding the job performance of women administrators in comparison to males. Working relations were described as follows: excellent (23 percent); beautiful/ super/ great (8 percent), very good (7 percent), good (14 percent), fine (7 percent), no difference (3 percent), no problems (3 percent), individual (3 percent), o.k. (2 percent), and don't know (1 percent). Job performance in comparison to that of males was described in the following manner: excellent or outstanding

(10 percent), better (14 percent), equal (45 percent), fine/good (5 percent), individual (3 percent), performance not related to sex (1 percent), can't compare (3 percent), and don't know (1 percent).

Participants were asked to indicate approximate salaries for female administrators. Salary ranges specified at each level were as follows: State Department of Education ($13,500 to $33,000), regional ($15,000 to $24,800), state vocational school ($11,000 to $22,500), local school districts ($17,000 to $32,000), university ($15,000 to $39,000), and community college ($12,500 to $20,000). This represented a total salary range for female administrators in vocational education from $11,000 to $39,000. Two percent of the participants would not provide a salary range, and five percent indicated that they were not aware of the salary range. When asked if the salaries of females were equal to those of males, 76 percent of the participants said yes. One percent of the participants could not provide an answer. Three percent did not know, and one percent said no. When asked to identify the main reason for the difference, the following response was provided: "Discrimination. We have a male program coordinator (two steps lower) who makes more than she does."

Participants were asked if the organization had made an investigation of possible discrepancies between males and females in terms of employment conditions such as length of service, actual job duties compared with job description, assignment of pay for extra duties, opportunities for overtime, opportunities for raises, and opportunities for bonuses. Four percent of the participants indicated that they did not know if such an investigation had been made. A total of 64 percent of the respondents indicated that such an investigation had not been conducted. Eight percent did not know why an investigation had not been conducted. Other participants indicated that the investigation had not been conducted because it is not needed (45 percent), not my job (4 percent), too hard to do (3 percent), lack money (2 percent), and done informally (2 percent). Thirty-two percent of the participants indicated that an investigation had been made. Four percent indicated that they did not know how the investigation was made, and one percent indicated that it had been made informally. Twenty percent indicated that jobs and money were compared. Two percent indicated that the State Department of Personnel conducted the investigation. An additional two percent indicated that the investigation had been conducted through staff discussion.

Extent of Female Applicants

Interviewers informed participants that the project staff members were interested in obtaining information regarding the extent of female applicants for administrative positions in vocational education. The interviewers showed the participant a data sheet regarding the extent of female applicants and explained that the staff member realized that they might not have the specific information requested on the data sheet at hand. The interviewers further explained that they would be happy to complete the data sheet during the interview if such information was at hand. If not, interviewers explained that the data should be compiled and returned to the project director in the self-addressed, stamped envelope within a week. These data sheets were obtained from all persons completing an interview.

Data sheets requested the following information regarding applications from January 1, 1978 through December 31, 1978: approximate number of applications for specific positions; approximate number of female applications; approximate number of females reaching the top three candidates; number of cases where male candidates were accepted over female candidates; and if females were selected and didn't accept, what were the reasons expressed for not accepting.

Information obtained from the data sheet is reported by level. Data regarding the extent of female applicants is presented in exact numbers when there was agreement regarding these figures. It is presented in ranges when disagreement existed.

State Department of Education. Information regarding the extent of female applicants at the State Department of Education level is presented in Table 39. Discrepancies existed in reports provided at unit, division, and higher than division levels. This indicates that persons may not be aware of the number of applicants for positions. Interviewers were unable to obtain a completed interview with the State Commissioner of Personnel.

Participants indicated that approximately 3 individuals applied for the Deputy Superintendent for Occupational Education position. They did not list either the number of female applicants for the position or the number of females reaching the top three candidates.

Participants indicated that approximately 3 to 4 individuals applied for the assistant bureau officer position and one individual applied for the division director position. They did not list the number of female applicants or the number of female candidates reaching the top three candidates.

TABLE 39

EXTENT OF FEMALE APPLICANTS FOR ADMINISTRATIVE POSITIONS IN VOCATIONAL EDUCATION AT THE STATE DEPARTMENT OF EDUCATION JANUARY 1, 1978 THROUGH DECEMBER 31, 1978

	Positions																								
Applicant Information	Deputy Superintendent for Occupational Education	Assistant Superintendent, Bureau for Vocational Education	Assistant Bureau Officer	Division Director	Unit Director	Unit Assistant Director	Unit Supervisor	Unit Coordinator	Regional Director	Regional Program Coordinator	Regional Industrial Coordinator	Regional CETA Coordinator	St. Vocational School Principal	State Vocational School Assistant Principal	State Vocational School Department Head	Area Center Coordinator or Principal	Area Center Assistant Principal	Area Center Department Head	Coordinator or Principal Correctional Institution	Assistant Principal Correctional Institution	Coordinator or Principal Practical Nursing School	Assistant Principal Practical Nursing School	TOTALS
a. Approximate number of applications received:	3		3 to 4	1	11 to 14	6	7 to 26	3 to 26	4														1 to 26
b. Approximate number of applicants who were female:					2 to 5	3	4 to 15	3 to 14	1														1 to 15
c. Approximate number of females who reached the top three candidates:					3	3	3 to 4	3 to 14	1														1 to 14

Participants indicated that 11 to 14 individuals applied for the unit director position. Approximately 2 to 5 of these individuals were females, and 3 females reached the top three candidates.

Approximately 6 individuals were reported to have applied for the unit assistant director position. Approximately 3 of these applicants were females, and 3 females reached the top three candidates.

Participants reported that 7 to 26 applications were received for the unit supervisor position. They reported that approximately 4 to 15 of these applicants were females, and 3 to 4 females reached the top three candidates.

Approximately 3 to 26 applications were received for the unit coordinator position. Females represented approximately 3 to 14 of the applicants, and 3 to 14 reached the top three candidates.

Approximately 4 individuals applied for the regional director position. Approximately 1 of these applicants was a female, and this applicant was among the top three candidates.

When asked in what number of cases a male candidate had been accepted over a female, participants indicated none. One participant indicated that 6 of the 7 female applicants were employed. The other female applicant applied for a position filled by a female.

Participants did not specify any reasons for accepting male candidates over female candidates. One participant offered the following information when asked the reasons that females expressed for not accepting: We had no formal applications from women who later declined to accept, but we failed to get applications from both men and women because of several reasons: (1) salary too low; (2) spouse needs a job, too; (3) move to Frankfort is inconvenient, i.e., own house elsewhere, my family ties in home community, children don't want to change schools; (4) do not like the travel involved; and (5) prefer teaching to a supervisory-type position.

Regional level. Information regarding the extent of female applicants at the regional level as provided by regional directors is presented in Table 40. A total of 57 applications were received for positions at the regional level. Of this number, 6 were female, and 5 female candidates reached the top three candidates on the register.

Applications were received for the following positions at the regional level: program director (7); regional program coordinator (5); state vocational school principal (22); state vocational school assistant principal (8); state vocational school department head (2); area center coordinator or principal (11); and coordinator or principal of correctional institution (2). The 6 female candidates applied for positions as regional director (1); state vocational school principal (1); state vocational school department head (1); and area center coordinator or principal (3). Women reached the top three candidates for all positions except state vocational school principal.

Participants did not specify the number of cases where a male candidate was accepted over a female. When asked the reasons for accepting male candidate(s) over female candidates, the following response was given by one participant: "The male had vocational teaching and administrative experience, the female did not."

TABLE 40

EXTENT OF FEMALE APPLICANTS FOR ADMINISTRATIVE POSITIONS IN VOCATIONAL EDUCATION AT THE REGIONAL LEVEL

JANUARY 1, 1978 THROUGH DECEMBER 31, 1978

Applicant Information	Positions														
	Regional Director	Regional Program Coordinator	Regional Industrial Coordinator	Regional CETA Coordinator	State Vocational School Principal	State Vocational School Assistant Principal	State Vocational School Department Head	Area Center Coordinator or Principal	Area Center Assistant Principal	Area Center Department Head	Coordinator or Principal Correctional Institution	Assistant Principal Correctional Institution	Coordinator or Principal Practical Nursing School	Assistant Principal Practical Nursing School	TOTAL
a. Approximate number of Applications received:	7	5	0	0	22	8	2	11	0	0	2	0	0	0	57
b. Approximate number of applicants who were female:	1	0	0	0	1	0	1	3	0	0	0	0	0	0	6
c. Approximate number of females who reached the top three candidates:	1	0	0	0	0	0	1	3	0	0	0	0	0	0	5

Participants did not provide responses to the following question: If females were selected and didn't accept, what reasons did they express for not accepting.

Information obtained from regional directors was compared with that obtained from the State Department of Education. It appears that discrepancies exist in the information provided regarding applications for regional level positions.

State vocational schools. Information obtained from state vocational school principals regarding the extent of female applicants is presented in Table 41. Approximately 37 applications were received for state vocational school positions. Approximately 6 of these applications were from females, and approximately 4 females reached the top three candidates.

Applications were received for positions in state vocational schools as follows: principal (14), assistant principal (13), and department head (10). Three women applied for the assistant principal position, and 1 was among the top three candidates. Three women applied for the department head position, and they reached the top three candidates.

No answers were provided for the questions regarding: (1) the number of cases where a male candidate had been accepted over a female, and (2) the reasons for accepting male candidates over female candidates. One participant provided the following information when asked if females were selected and didn't accept, what reasons did they express for not accepting: "Female said she didn't want the responsibility."

TABLE 41

EXTENT OF FEMALE APPLICANTS FOR ADMINISTRATIVE POSITIONS IN VOCATIONAL EDUCATION AT THE STATE VOCATIONAL SCHOOLS

JANUARY 1, 1978 THROUGH DECEMBER 31, 1978

Applicant Information	Positions			
	Principal	Assistant Principal	Department Head	TOTAL
a. Approximate number of applications received:	14	13	10	37
b. Approximate number of applicants who were female:	0	3	3	6
c. Approximate number of females who reached the top three candidates:	0	1	3	4

Information obtained from state vocational school principals did not compare with responses from the State Department of Education. It appears that discrepancies existed in the information provided at this level.

Local school systems. Information regarding applications at the local school level is presented in Table 42. Approximately 10 to 50 applications were received, and 3 to 15 applications were from females. Females reached the top three candidates in approximately 1 to 5 cases.

Of the approximately 12 to 50 applications for director or coordinator of vocational education, 4 to 15 applications were from females. Females reached the top three candidates in 1 to 5 cases.

Approximately 10 applications were received for the position of supervisor of vocational program area. Approximately 3 of these applicants were females, but only 1 female reached the top three candidates.

Participants indicated that male candidates had been accepted over females in 1 to 4 cases. Male candidates were said to have been accepted over female candidates for the following reasons: best candidate, and experience and training. Participants specified "not applicable" in response to the following question: if females were selected and didn't accept, what reasons did they express for not accepting.

Discrepancies were found in information provided within two of the systems reporting. Other systems reported no applicants during the period.

TABLE 42

EXTENT OF FEMALE APPLICANTS FOR ADMINISTRATIVE POSITIONS IN VOCATIONAL EDUCATION IN THE LOCAL SCHOOL SYSTEMS JANUARY 1, 1978 THROUGH DECEMBER 31, 1978

Applicant Information	Positions		
	Director or Coordinator of Vocational Education	Supervisor of Vocational Program Areas	TOTAL
a. Approximate number of applications received:	12 to 50	10	10 to 50
b. Approximate number of applicants who were female?	4 to 15	3	3 to 15
c. Approximate number of females who reached the top three candidates?	1 to 5	1	15

College and university level. Table 43 illustrates information regarding the extent of female applicants at the college and university level. Approximately 1 to 30 applications were received, and one to 10 applications were from females. Females reached the top three candidates in 1 to 3 cases.

Approximately 27 to 30 applications were received for the Director of Vocational Education position. However, no applications were received from females.

Of the approximately 1 to 25 applications received for the program coordinator or supervisor for vocational education position, 1 to 10 applications were from females. Approximately 1 to 3 females were reported to have reached the top three candidates.

No cases were reported where a male candidate had been selected over a female. However, the following reason was specified for accepting male candidates over female candidates: met job qualifications. Participants did not provide an answer to the question: if females were selected and didn't accept, what reasons did they express for not accepting?

Discrepancies were found in information presented regarding the extent of female applicants within four of the colleges and universities reporting. There were no discrepancies in information presented from three colleges and universities.

Community college level. Table 44 illustrates information regarding the extent of female applicants at the community college level. Approximately 176 applications were reported for the position of program coordinator or supervisor for vocational education. Approximately 43 of these applications were from females, and 8 females reached the top three candidates.

TABLE 43

EXTENT OF FEMALE APPLICANTS FOR ADMINISTRATIVE POSITIONS IN VOCATIONAL EDUCATION AT THE COLLEGE AND UNIVERSITY LEVEL JANUARY 1, 1978 THROUGH DECEMBER 31, 1978

Applicant Information	Positions		
	Director of Vocational Education	Program Coordinator or Supervisor for Vocational Education	TOTAL
a. Approximate number of applications received:	27-30	1-25	1-30
b. Approximate number of applicants who were female:	0	1-10	1-10
c. Approximate number of females who reached the top three candidates:	0	1-3	1-3

TABLE 44

EXTENT OF FEMALE APPLICANTS FOR ADMINISTRATIVE POSITIONS IN VOCATIONAL EDUCATION AT THE COMMUNITY COLLEGE LEVEL
JANUARY 1, 1978 THROUGH DECEMBER 31, 1978

Applicant Information	Position
	Program Coordinator or Supervisor for Vocational Education
a. Approximate number of applications received:	176
b. Approximate number of applicants who were female:	43
c. Approximate number of females who reached the top three candidates:	8

Community college presidents reported that a male candidate had been accepted over a female candidate in three cases. The following reasons were provided for accepting male candidates over female candidates: previous experience, durable personality traits, and academic training. Participants did not provide an answer to the question: if females were selected and didn't accept, what reasons did they express for not accepting?

Information obtained from community college presidents with other responses at this level were not comparable. Therefore, we were unable to determine if discrepancies existed in the information provided.

Additional Comments Regarding Employment Policies and Practices

In closing the interview, participants were asked to make any additional comments regarding employment policies and practices in their organizations. These comments are presented in Appendix K.

SUMMARY OF FINDINGS

Interpretation of the data revealed a number of findings. These findings are summarized in several sections as follows: how individuals become administrators, general employment policy and procedures, affirmative action, recruitment and selection, promotion, status of women in the organization, extent of female applicants, and additional comments regarding employment policies and practices.

How Individuals Became Administrators

The majority of the participants became administrators through being contacted and offered the position. They generally take the following steps into administration: degree--entry level job--promotion.

General Employment Policy and Procedure

The majority of the participants indicated that set procedures existed in order to hire individuals for administrative positions in vocational education and that these procedures were in writing. However, only 7 percent of the participants were able to provide copies of the procedures. Most of the participants indicated that the procedures worked well for them.

The majority of the participants indicated that attempts had been made within the organization to review policy and procedure manuals, job descriptions, employment applications, and recruitment materials to consider sexist language or implications that they might contain. However, many of the policy and procedure manuals reviewed by the project staff did contain sexist language.

Most of the participants indicated that an analysis had been made of current employment patterns related to sex, race, position, and salary. However, a large number of the participants indicated that such analyses had not occurred or that they were not aware that such analyses had occurred. A majority of the participants indicated that they had not made attempts to identify areas where women were concentrated or underutilized and the extent of underutilization.

The majority of the participants indicated that they were not aware of barriers to the employment of women in administrative positions in vocational education. They further indicated that it was easy to find women who were qualified to be administrators.

Affirmative Action

Most of the participants indicated that the support for affirmative action was very serious. The majority of the participants indicated that the organization had designated an affirmative action coordinator, and they were able to name the individual who served as the coordinator. However, there were discrepancies in the names provided at the State Department of Education level. Discrepancies also existed in names provided with individual systems of local school districts and universities.

The majority of the participants were able to describe the job duties of the affirmative action coordinator. They also indicated that the affirmative action coordinator performed other duties in addition to affirmative action work.

The majority of the participants indicated that the organization helped the people who hire administrators apply affirmative action. However, most participants indicated that they were not aware of the procedures followed in order to handle affirmative action complaints.

Recruitment and Selection

The majority of the participants indicated that persons were actively recruited for administration in vocational education, and they were able to specify who recruits these individuals. Most of the participants indicated that women were actively recruited for administration and that the organization publicizes or promotes opportunities for women in administrative positions in vocational education.

The majority of the participants indicated that they encouraged people to seek administrative positions in an informal manner. They indicated that a degree in vocational education administration, ability to work with people, and technical experience are essential qualifications for administrators in vocational education.

A majority of the participants were able to identify individuals or groups who made final decisions regarding hiring administrators for vocational education. However, there were discrepancies in the information reported at all levels. Most participants indicated that women were not included to a large degree in the decision-making process related to selecting administrators in vocational education.

A majority of the participants indicated that personal histories, background requirements, specific education experience, specific work experience, and application forms, were required of applicants for administration in vocational education. Paper-and-pencil tests and qualifying exams were not required. Most of the participants indicated that interview rating forms were not utilized.

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Promotion

A majority of the participants indicated that the same criteria used for hiring administrators was used to promote administrators. While a majority of the participants indicated that "job enrichment" or "career ladder" programs existed within the organization, they indicated that an administrative internship program did not exist.

Status of Women in the Organization

A total salary range for female administrators in vocational education was reported to be from $11,000 to $39,000 with salary ranges at each level specified as follows: State Department of Education ($13,500 to $33,000), regional ($15,000 to $24,800), state vocational school ($11,000 to $22,500), local school districts ($17,000 to $32,000), university ($15,000 to $39,000), and community college ($12,500 to $20,000). A majority of the participants indicated that the salaries of females were equal to those of males.

Extent of Female Applicants

Data regarding the extent of female applicants illustrate that females have applied for administrative positions in vocational education at the following levels: State Department of Education, regional, state vocational school, local schools, college and university, and community college. Females were also reported to have reached the top three candidates for certain positions at all levels. However, certain discrepancies were found in information provided regarding the extent of female applicants at some levels.

Participants within each level of administration do not hold similar views regarding the manner in which individuals are hired for vocational education administration. Discrepancies exist with certain information provided at all levels.

Additional Comments Regarding Employment Policies and Practices

Additional comments regarding employment policies and practices are presented in Appendix K. Most of the additional comments centered around affirmative action and the role of women.

CONCLUSIONS

Analysis of the findings of this study provided a basis for the following conclusions:

1. A number of individuals become administrators by being contacted regarding positions and offered such. They do not necessarily apply for these administrative positions; rather, they are "sought out."
2. Written set procedures exist regarding hiring individuals for administrative positions in vocational education. However, it appears that discrepancies exist in the manner in which these procedures are implemented as indicated by cross tabulations of information obtained from participants. All persons within the organization do not follow the same policy and procedure. Lower level administrators do not view application procedures in the same manner as

top level administrators. Expressed policy and procedure often differs from that outlined in policy and procedure manuals.

3. Information obtained from participants often differs from what exists in practice. For instance, the majority of the participants indicated that policy and procedure manuals, job descriptions, employment applications, and recruitment materials had been reviewed to consider sexist language or implications that they might contain. However, many of the recent policy and procedure manuals reviewed by the project staff still contained sexist language.
4. While a majority of the participants indicated that a degree in vocational education administration is an essential qualification for administration in vocational education, many of the vocational administrators identified in Phase III of the research component do not have a degree in vocational education administration.

RECOMMENDATIONS

Based on the findings and conclusions reported in this phase of the research, the following recommendations are proposed:

1. Policy and procedure manuals should be reviewed for possible sexist language or implications.
2. Analyses should be made at all levels of current employment patterns in the administration of vocational education based on sex, race, position, and salary. Such analyses

should also include an investigation of possible discrepancies between males and females in terms of employment conditions such as length of service, actual job duties compared with job description, assignment of pay for extra duties, opportunities for overtime, opportunities for raises, and opportunities for bonuses.

3. Organizations should attempt to identify areas where women in vocational education are concentrated or under-utilized and the extent of underutilization.
4. Administrators should be made aware of the barriers to the employment of women in administrative/leadership positions in vocational education.
5. Administrators need to be informed regarding the following: (1) policies and procedures related to the employment of women in administration in vocational education, and (2) techniques for implementing these policies and procedures.
6. Administrators should be trained in the procedures to follow in handling affirmative action complaints.
7. Formal mechanisms should be developed to encourage persons to apply for administrative positions in vocational education.
8. An administrative internship program should be developed to prepare individuals for administrative positions in vocational education.
9. "Job enrichment" and "career ladder" programs should be directed to meet the needs of women.

10. Techniques should be developed to include more women in the decision-making process related to selecting administrators in vocational education.

11. Attempts should be made to identify both affirmative action coordinators and individuals who make final decisions regarding hiring administrators for vocational education. Individual names should be made public information.

12. Persons who hire administrators for vocational education should be held accountable for the imbalance of women in these positions.

13. Additional research should be conducted to determine the number of women who are applying for administrative positions in vocational education, the nature of the positions for which they are applying, and the results of such applications.

14. A study should be made of techniques used in order to:
    (a) recruit women for administration in vocational education;
    (b) publicize or promote opportunities for women in administrative positions in vocational education.

15. Additional research should be conducted to identify duties of the affirmative action coordinator in addition to affirmative action work. Such research should focus on determining if these other duties prohibit affirmative action coordinators from performing duties related to affirmative action.

SUMMARY

This phase of the research component was designed to identify employment policies and practices which may act as barriers to the employment of women as administrators. Specifically, answers to the following questions were sought as they related to the employment of women in vocational education administration:

1. What are the expressed employment policies and practices of employers?
2. Do the expressed policies and practices of employers differ from those specified in policy and procedure manuals?

The study was conducted through structured interviews with individuals who hire administrators for vocational education

Policy and procedure manuals were reviewed in order to identify specific policies and procedures regarding the employment of administrators in vocational education. Using this information, a series of questions was developed. These questions were reviewed by a panel of experts, and the structured interview schedule was developed. A data sheet was also developed to obtain information from administrators regarding the extent of applicants for administrative positions in vocational education.

The entire population was studied--118 individuals who have responsibility for hiring administrators for vocational education in Kentucky. Interviews were scheduled with 89 percent of the population. However, 100 usable interviews were completed as follows: 29 from the State Department of Education; 14 from state vocational schools; 12 at the regional level; 10 at the local school level; 20 at the college and university level; and, 15 at the community college level. This represented 85 percent of the population and included 91 men and 9 women.

Data was tabulated by level and totals were computed for the entire group of respondents. Descriptive statistics and cross tabulations were utilized.

Findings were presented regarding several topics as follows: how individuals became administrators, general employment policy and procedure, affirmative action, recruitment and selection, promotion, status of women in the organization, extent of female applicants, and additional comments regarding employment policies and practices. Participants within each level of administration did not hold similar views regarding the manner in which individuals are hired for vocational education administration. In many instances, expressed policies and practices differed from that stated in policy and procedure manuals. Several recommendations were offered to improve the status of women in vocational education administration.

RESEARCH COMPONENT

PHASE V: A STUDY OF EMPLOYER ATTITUDES REGARDING THE EMPLOYMENT OF WOMEN ADMINISTRATORS IN VOCATIONAL EDUCATION IN KENTUCKY

By: Anna Sue Couch

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INTRODUCTION

Researchers have attempted to identify some of the factors which prevent women from achieving equal representation in education administration. The evidence regarding attitudinal barriers is limited in both volume and scope, but the available data suggest that biased attitudes of employers constitute one of the major obstacles. Research has not adequately dealt with the problem as it relates to vocational education.

The purpose of this phase of the research component was to identify the attitudes of individuals who have responsibility for hiring and promotion decisions regarding the employment of women as administrators in vocational education in the Commonwealth of Kentucky. The study was designed to allow an indirect assessment of attitudes without revealing to the respondents the intent of the study.

Statement of the Problem

The purpose of this phase of the research component was to identify specific attitudes which may act as barriers to the employment of women administrators. Specifically, answers to the following questions were sought:

1. What are the attitudes of individuals who have responsibility for hiring and promotion decisions toward women administrators in vocational education in Kentucky?

2. Do employers express biased attitudes toward women in regard to:
    - educational background?
    - employment experience?
    - professional activities?
    - written recommendations?
    - leadership potential?
    - interpersonal skills?
    - career commitment?

Hypotheses

Hypotheses were structured to allow planned contrasts of the ratings for equally qualified male and female applicants. Sixteen null hypotheses were stated as follows:

H_{01}: There will be no significant difference in the mean overall rating for equally qualified male and female applicants, as indicated on a seven-item Employment Rating Scale for each applicant.

H_{02}: There will be no significant differences in the mean ratings for equally qualified male and female applicants on seven specified criteria, as indicated in the Employment Rating Scale for each applicant:

H_{02a}: educational background

H_{02b}: employment experience

H_{02c}: professional activities

H_{02d}: written recommendations

H_{02e}: leadership potential

H_{02f}: interpersonal skills

H_{02g}: commitment to a career

H_{03}: There will be no significant difference in the mean overall rating for male and female applicants, regardless of applicant qualifications, as indicated on a seven-item Employment Rating Scale for each applicant.

H_{04}: There will be no significant differences in the mean ratings for male and female applicants on seven specified criteria, regardless of applicant qualifications, as indicated on the Employment Rating Scale for each applicant:

H_{04a}: educational background

H_{04b}: employment experience

H_{04c}: professional activities

H_{04d}: written recommendations

H_{04e}: leadership potential

H_{04f}: interpersonal skills

H_{04g}: commitment to a career

METHODOLOGY AND DESIGN

The Population

The population for this study was employers of administrators in vocational education. This included a total of 114 individuals who have responsibility for hiring and promotion decisions at the state, regional, local, and community college levels in Kentucky. These individuals were those who employ:

1. Administrators in the Bureau of Vocational Education
2. Regional director of vocational education
3. Regional coordinators of vocational education
4. Coordinators of area vocational education centers
5. Principals of state vocational-technical schools
6. Administrators of vocational education programs in local school districts
7. Administrators of vocational education programs in community colleges.

The population was identified by using the Kentucky Vocational Education Directory (1977) and the Personnel Directory (1977) of the University of Kentucky Community College System.

The Sample

The sample was comprised of the entire population--an intact group of 144 individuals who have responsibility for hiring and promotion decisions at the state, regional, local, and community college levels. The sample included 32 administrators in the Kentucky Bureau of Vocational Education, 30 regional administrators, 24 administrators in local school districts, and 28 administrators in the community college system.

Design for the Study

The research design chosen for the study was a 2 x 2 experimental design with repeated measures. As described by Winer (1962), a repeated measures design permits a very sensitive test for differences by allowing the partitioning of the total variation so as to account for a residual source of variation which is not accounted for in other research designs.

The study was designed to allow assessment of attitudes without making the respondents aware of the intent of the study. Respondents were asked to participate in a study of the selection process for administrators in vocational education, but they were not informed that the study concerned sex bias. The need for such indirect assessment of social attitudes has been suggested by Campbell (1950):

> In the problem of assessing social attitudes, there is a very real need for instruments which do not destroy the natural form of the attitude in the process of describing it. There are also situations in which one would like to assess a 'prejudice' without making respondents self-conscious or aware of the intent of the study. (p. 15)

Campbell further described the procedures for constructing such a test:

> . . . find a task which all of your respondents will take as objective, and in which all will strive to do well . . . Load the test with content relative to the attitude you study. Look among the responses for systematic error, or for any persistent selectivity of performance. If such be found, it seems an adequate basis for the inference of an attitude. (p. 19)

The participants were asked to evaluate fictional male and female applicants for administrative positions, based on two male/ female pairs of resumes, each pair matched for equal qualifications. It was assumed that attitudes of the respondents would be reflected in the rating given to the applicants. Significant differences in the ratings for equally qualified male and female applicants were used as a basis for the inference of sex-biased attitudes.

Instrumentation

An examination of the literature located three studies in which fictional resumes were used to assess attitudes toward the hiring of women professionals. Simpson's (1968) dissertation research focused on attitudes toward women in higher education. He used pairs of male/female resumes in conjunction with an employment rating scale, a Likert-type Open Subordination of Women Scale and a modified forced-choice format. Simpson found that male applicants were rated higher than equally qualified females and that those who most preferred males also demonstrated the most negative attitudes toward women in general.

Similar methodology was used by Strong (1972) in a study of attitudes toward the selection of women faculty in collegiate schools of business. Strong also used the Open Subordination of Women Scale and pairs of resumes from which the respondents selected one of each pair. The results indicated a marked preference for male applicants over equally qualified females and a generally negative attitude toward women on the part of those respondents who showed the strongest preference for males. Both Simpson and Strong used

Campbell's procedures for indirect assessment of social attitudes, which have been previously described.

Lewin and Duchan (1971) used resumes with a different approach in a New York University study of the hiring decision in college and university departments of physical science. Four different versions of a standardized resume were used to describe an "average" male applicant, an "average" female applicant, an "excellent" female applicant, and a "superior" female applicant. The subjects, chairmen of graduate departments of physical science, were randomly assigned to treatment groups corresponding to the four resumes. A questionnaire was used to obtain evaluations of the applicant and demographic data concerning the subjects. The researchers found that the male applicant received a more favorable reaction than the equally qualified female, but that the better qualified females were preferred over the average male.

The literature search failed to identify a research instrument that was appropriate for the study. Therefore, an instrument was developed by Couch (1978) which included the following parts:

1. Resumes for four fictional applicants including: a. an average male and an average female--matched for equal qualifications, and b. a superior male and a superior female--matched for equal qualifications,
2. A 7-item Employment Rating Scale for rating each applicant on specified criteria,
3. A form for obtaining demographic data from the respondents,
4. A cover letter which explained the study, provided instructions, and gave assurance of anonymity for respondents.

The complete instrument is included in Appendix L.

In the interest of minimizing the total length of the instrument, the four resumes were constructed as concise one-page summaries of applicant qualifications. It was believed that this brief format would contribute to a higher return rate and would also avoid the introduction of additional sources of bias with more specific, detailed information. Each resume included the applicant's name, age, marital status, and number of children; information related to educational background, employment experience and professional involvement; and abstracts from letters of recommendation written on behalf of the applicant. The applicants were clearly identified as male or female by name and through the use of personal pronouns. The information provided in each resume corresponded to the items on the Employment Rating Scale and also allowed each applicant to meet minimum qualifications for administrative and supervisory personnel, as listed in the Kentucky State Plan for Vocational Education (1976).

In order to control for possible inequalities in applicant qualifications, two sets of resumes were developed; the sets were identical except for applicant gender. Identifying code numbers were arbitrarily selected and assigned to each resume. In Set A, Resume 26 described a male applicant with average qualifications; Resume 17 described a female applicant with average qualifications; Resume 458 described a male applicant with outstanding qualifications; Resume 392 described a female applicant with outstanding qualifications. In Set B, the name of the applicant and other sex indicators were switched on each resume pair. Each set of resumes was randomly assigned to one-half of the sample. As a further control, the resumes in each set were randomly ordered for presentation to the respondents.

The Employment Rating Scale was developed after a review of the criteria used for selecting administrators. It was assumed that selection criteria should logically be based on those competencies and qualities which produce effective administrators. Research apparently has provided very little evidence regarding the selection criteria which are reliable predictors of administrative effectiveness, and it is generally agreed that these predictors are difficult to identify. The discussion which follows summarizes the related literature.

Briner (1960) identified several basic criteria which superintendents consider in the selection of subordinate administrators. These included age, sex, race, appearance, family and social relationships, educational and social philosophy, academic training, personality, demonstrated professional competence, written recommendations, and professional contribution.

In a study of administrative effectiveness, Lipham (1960) found no significant differences between effective and ineffective administrators on the basis of characteristics such as age, sex, marital status, intelligence, years of graduate study, years of teaching experience, and years of administrative experience. However, the effective administrator ranked significantly higher on certain personality variables, including emotional stability, social and interpersonal skills, activity drive, achievement drive, and mobility drive.

Castetter (1976) made no distinction between selection criteria for administrators and the criteria which should be used in selecting other professional education personnel. He listed the following "person requirements": personal history, academic preparation, professional preparation, intelligence, physical and mental health, past professional performance, attitudes and interests, and value system.

Performance Evaluation of the Educational Leader (PEEL), a competency-based evaluation program developed by Demeke, identified seven areas of competence for educational leaders. Metzger (1976) lists these areas as follows:

1. Director of the educational program
2. Coordinator of guidance and educational services
3. Member of the school staff
4. Administrator of personnel
5. Member of the profession
6. Link between community and school
7. Director of support management

Demeke's areas of competence were similar to those identified for vocational administrators in a research project conducted at The National Center for Vocational Education (1977). These areas include:

1. Program planning, development and evaluation
2. Instructional management
3. Student services
4. Personnel management
5. Staff development

6. Professional relations and self-development
7. School/employer/community relations
8. Facilities and equipment management
9. Business and financial management

The literature indicated a trend toward administrative specialization and an increasing emphasis on the variety of administrative competencies needed by the total administrative team. It was not feasible to include in the Employment Rating Scale all of the items related to specific, specialized competencies. The instrument, therefore, was limited to seven general criteria which are applicable to all administrative positions and about which information could be provided in a resume:

1. Educational background
2. Employment experience
3. Professional activities
4. Written recommendations
5. Leadership potential
6. Interpersonal skills
7. Career commitment

The research previously cited in this study indicated that employer attitudes which are unfavorable to women may constitute obstacles to the employment of women as administrators. Five of the items listed above were included in the Employment Rating Scale to reveal whether or not the respondents would demonstrate the following specific stereotyped attitudes:

1. Women lack the academic credentials required for administrative positions (Item 1: educational background).

2. Women do not have the appropriate prior experience needed by administrators (Item 2: employment experience).
3. Women lack the necessary time and motivation for professional development (Item 3: professional activities).
4. Women inherently lack the qualities needed for effective leadership (Item 5: leadership potential).
5. Women, because of marital and family responsibilities, are not committed to careers (Item 7: career commitment).

Item 4, written recommendations, and item 6, interpersonal skills, were included as filler items.

The demographic data form was designed to obtain information regarding the status of the respondents: age, sex, length of experience in vocational education, vocational program area background, highest degree held, and position title. The cover letter explained the study, provided instructions, and assured the participants that their responses would remain anonymous.

The instrument was validated by a panel of judges composed of faculty members representing vocational education, educational administration, family studies, and home economics. The panel was asked to judge the resumes (without sex indicators) for equality of applicant qualifications, to determine if the items on the Employment Rating Scale were appropriate for evaluating administrative candidates, and to make suggestions for improving the instrument. The instrument was refined in light of suggestions made by the panel members.

The test-retest method was used to determine reliability of the instrument. The instrument was administered to 27 graduate students in educational administration at two separate times with a one-week time lapse between. Using the parallel model, a reliability coefficient was computed for each Employment Rating Scale, as follows: .7735 (Resume 17), .6968 (Resume 26), .8870 (Resume 392), .8678 (Resume 458). On the basis of these estimates and information presented by Anastasi (1976), the Employment Rating Scale was accepted as sufficiently reliable, although somewhat more reliable for resumes 392 and 458 than for resumes 17 and 26.

Data Collection

Data were collected by mailing the instrument, including the cover letter, the demographic data form, the resumes, and the Employment Rating Scale; and a self-addressed, postage-paid envelope to the respondents, allowing 10 days for a response. Each set of resumes, Set A and Set B, identical except for gender of the applicants, was randomly assigned to one-half of the sample. The resumes in each set was randomly ordered.

A magnetic card typewriter was utilized to type an original cover letter to each respondent. The same procedure was used for two follow-up requests which were sent to non-respondents. The first follow-up request was mailed 10 days after the instrument was first mailed; the second follow-up request was mailed 10 days later. Individual follow-up letters were written to several respondents who had inadvertently omitted one or more items. Letters are included in Appendix M.

Responses were received from a total of 103 of the 114 participants--for a return rate of 90 percent. Of these responses, four were not usable because the respondents felt they did not have sufficient information to evaluate the applicants on one or more items. Usable responses were received from 99 participants--a usable return of 87 percent.

Data Analysis

The Statistical Package for the Social Sciences and the Finn Program for Univariate and Multivariate Analysis of Variance, Covariance and Regression were used to analyze the data at the University of Kentucky Computing Center. The data were transferred to computer cards and hypotheses were tested by means of a two-day Analysis of Variance for Repeated Measures.

The .05 level of significance was used as a basis for acceptance or rejection of the null hypothesis. Rejection of the null hypothesis was used as a basis for the inference of sex-biased attitudes. Appropriate post-hoc comparisons, based on demographic characteristics of the respondents, were made after examination of the data.

The two-way Analysis of Variance for Repeated Measures permitted simultaneous testing of main effects due to sex and qualifications and for interaction effects. If the analysis revealed no interaction, the main effect due to sex was interpreted independently. Where the presence of an interaction precluded interpretation of the main effects, it was necessary to conduct two separate *t*-tests (one for each level of qualifications) in order to test for simple main effect differences due to sex. The findings of previous research led to the expectation that any differences in the ratings for equally qualified applicants would be in favor of the male; therefore, one-tailed t-tests were used. Main effect differences due to qualifications were not analyzed.

Significant interactions and the subsequent analyses for main effect differences made the testing of Hypotheses H_{03} and H_{04} redundant. Therefore, these hypotheses were deleted from the study.

A preliminary examination of the data revealed a violation of one of the assumptions necessary for use of the Analysis of Variance technique--that of normal distribution. Due to consistently high ratings for superior applicants, the distribution of responses for superior applicants was negatively skewed toward the upper end of the scale. Several factors compensated for violation of the normality assumption and allowed the researcher to use the Analysis of Variance. First, Analysis of Variance is a robust test, i.e., the effect of a departure from normality is negligible. Second, based on the Central Limit Therom and the large sample size, it may be assumed that the sampling distribution of means is approximately normal, even though the parent population is skewed. In addition, the use of the .05 level of significance permits a relatively "conservative" F-test and reduces the probability of detecting differences when none actually exist.

INTERPRETATION OF DATA

In order to present an interpretation of the data, the following pattern is used. Each hypothesis is stated, followed by a description of the statistical treatment and a brief discussion of the analysis and interpretation. Data based on demographic characteristics of the respondents follow. The data interpretation is presented in three sections: Overall Rating of Applicants, Ratings of Applicants on Specific Criteria, and Comparisons Based on Demographic Data.

Overall Rating of Applicants

Hypothesis H_{01} stated: There will be no significant difference in the mean overall rating for equally qualified male and female applicants, as indicated on a 7-item Employment Rating Scale for each applicant. The data in Table 45 show that the combined effect of the main effects variables--sex and qualifications--produced a significant interaction (F = 4190.5313). A comparison of the mean overall ratings in Table 46 provides the basis for interpreting the interaction. The mean overall ratings were as follows: average female, 26.8384; average male, 26.7879; superior female, 31.3939; superior male, 31.6060. The graphic presentation of the interaction in Figure 4 shows that the interaction is due to the larger variation between the ratings for the superior applicants.

TABLE 45

ANALYSIS OF VARIANCE BETWEEN AND WITHIN SUBJECTS ON OVERALL RATING

Source of Variation	df	SS	MS	F	P
Between Subjects	98	44.014128	.449124		
Within Subjects					
Sex	1	1452.6431	1452.6431	2299.1418	.0001
Qualifications	1	1217.8315	1217.8315	2609.1506	.0001
Sex & Qualifications	1	380.1128	380.1128	4190.5313[a]	.0001
Error					
Sex	98	61.91836	.631820		
Qualifications	98	45.741892	.466754		
Sex & Qualifications	98	8.889335	.090708		

[a] Significant at .05 level.

TABLE 46

MEAN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR QUALIFICATIONS BY FEMALE AND MALE

Variable	Average Qualifications		Superior Qualifications	
	Female	Male	Female	Male
Educational background	3.7576	3.7374	4.7677	4.7879
Employment experience	3.5354	3.5455	4.4141	4.5152
Professional activities	3.8586	3.9192	4.4747	4.5050
Written recommendations	4.0505	4.0505	4.5050	4.5455
Leadership potential	3.8283	3.8283	4.4646	4.5050
Interpersonal skills	3.7879	3.7071	4.2121	4.1919
Career commitment	4.0202	4.0000	4.5556	4.5556
Overall rating	26.8384	26.7879	31.3939	31.6060

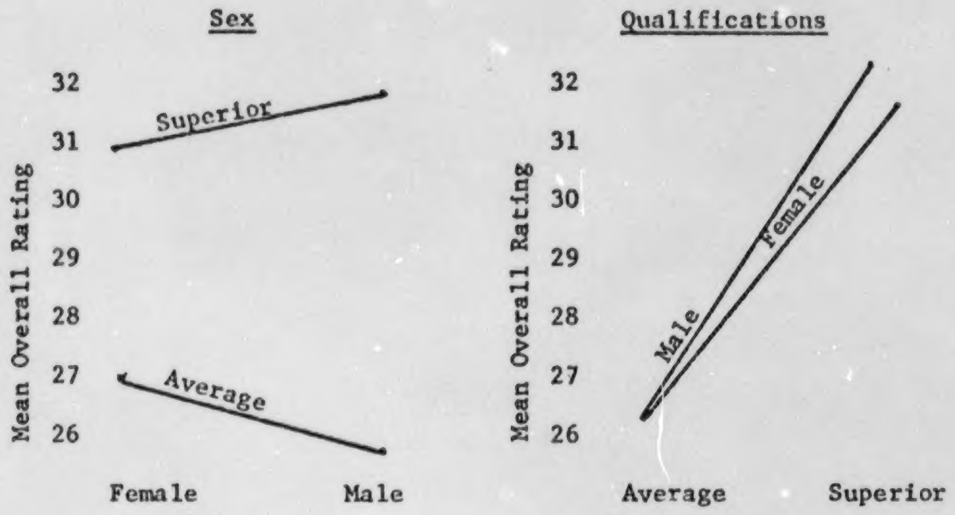

Figure 4: Mean Overall Rating of Applicants, by Sex and Qualifications

Because there was a significant interaction, t-tests were used to test for simple main effect differences due to sex for each level of qualifications. The results of these analyses are presented in Table 47. The difference in the mean overall ratings for average female and male applicants was in favor of the female applicant (t = 0.27). For superior applicants the difference in favor of the male was not significant (t = -1.00). Therefore, Hypothesis H_{01} was accepted.

TABLE 47

RESULT OF t-TEST ANALYSES FOR MAIN EFFECT DIFFERENCES IN OVERALL RATINGS DUE TO SEX

Level of Qualifications	N	Female Mean	SD	N	Male Mean	SD	t	Probability
Average	99	26.8384	3.950	99	26.7879	3.737	0.27	> .05
Superior	99	31.3939	3.413	99	31.6060	3.368	-1.00	> .05

df = 98 p .05 = +1.658

Rating of Applicants on Specific Criteria

Hypotheses H_{02} stated: There will be no significant difference in the mean ratings for equally qualified male and female applicants on seven specified criteria, as indicated on the Employment Rating Scale for each applicant. Seven sub-hypotheses were tested, corresponding to the seven items on the Employment Rating Scale. The analysis for each sub-hypothesis is discussed in the following paragraphs.

Hypothesis H_{02a}: Educational Background

Examination of the results of the Analysis of Variance on the variable of educational background (Table 48) shows no significant interaction between the main effects variables, as indicated by an 'F' value of .2836. In the absence of an interaction, the main effect difference due to sex was interpreted. The analysis revealed no sex difference in the ratings for male and female applicants, and Hypothesis H_{02a} was accepted.

TABLE 48

ANALYSIS OF VARIANCE, BETWEEN AND WITHIN SUBJECTS, ON EDUCATIONAL BACKGROUND

Source of Variation	df	SS	MS	F	P
Between Subjects	98	17.6778	.1804		
Within Subjects					
Sex	1	.00	.00	.00	1.0
Qualifications	1	105.0908	105.0908	229.3267	.0001
Sex & Qualifications	1	.0025	.0025	.2836	.5956
Error					
Sex	98	5.9999	.061224		
Qualifications	98	44.9093	.458258		
Sex & Qualifications	98	.8725	.0089		

Hypothesis H_{02b}: Employment Experience

The results of the Analysis of Variance on the variable of employment experience, presented in Table 49, show that the variation due to interaction of the main effects variables produced an 'F' value of 28.2156, which was significant at the .05 level. A comparison of the mean ratings for employment experience (Table 46) shows that there was a greater variation in the ratings for superior applicants than for average applicants. The ratings for average female and male applicants were 3.5354 and 3.5455, respectively; ratings for superior applicants were 4.4141 for female and 4.5152 for male.
Figure 5 reveals that the interaction is due to a relatively higher rating for the superior male applicant.

TABLE 49

ANALYSIS OF VARIANCE, BETWEEN AND WITHIN SUBJECTS, ON EMPLOYMENT EXPERIENCE

Source of Variation	df	SS	MS	F	P
Between Subjects	98	28.7962	.2938		
Within Subjects					
Sex	1	9.0909	9.0909	44.7489	.0001
Qualifications	1	45.3434	45.3434	136.0722	.0001
Sex & Qualifications	1	.5309	.5309	28.2156[a]	.0001
Error					
Sex	98	19.9091	.203154		
Qualifications	98	32.6565	.333230		
Sex & Qualification	98	1.8441	.0188		

[a] Significant at .05 level.

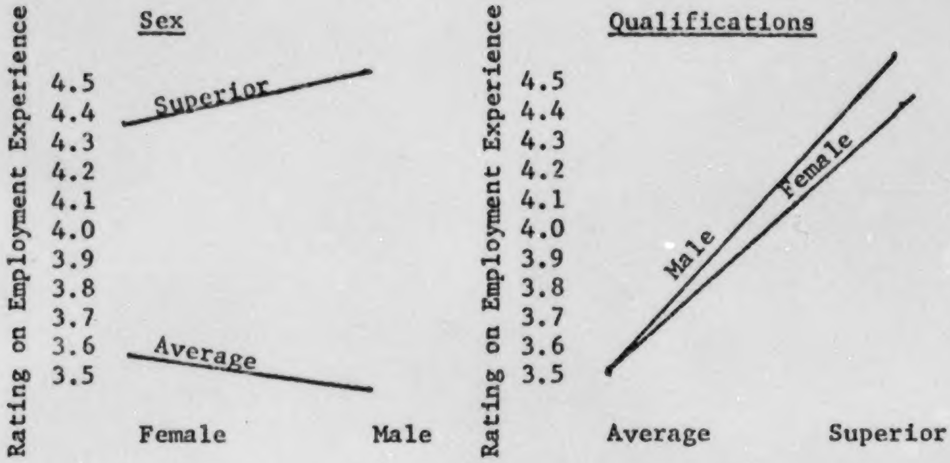

Figure 5: Ratings on Employment Experience by Sex and Qualifications

The presence of an interaction made it necessary to conduct t-test analyses for main effect differences due to sex. The results of these analyses, found in Table 50, show a t value of -0.19 for the difference in ratings for average applicants, which was not significant. For superior applicants, the t value of -1.68 was significant at the .05 level. On the basis of these analyses, Hypothesis H_{02b} was accepted with regard to average applicants; for superior applicants, it was rejected.

TABLE 50

RESULTS OF t-TEST ANALYSES FOR MAIN EFFECT DIFFERENCES IN EMPLOYMENT EXPERIENCE RATINGS DUE TO SEX

Level of Qualifications	N	Female Mean	SD	N	Male Mean	SD	t	Probability
Average	99	3.5354	0.733	99	3.5455	0.674	-0.19	.05
Superior	99	4.4141	0.769	99	4.5152	0.719	-1.68	.05

df = 98 p .05 = -1.658

Hypothesis H_{02c}: Professional Activities

Table 51 shows the results of the Analysis of Variance on the variable of professional activities. The data reveal that the variation due to the combined effects of the main effects variables produced an 'F' value of 17.1804, indicating an interaction which was significant at the .05 level. The mean ratings on professional activities in Table 46 are as follows: average female, 3.8586; average male, 3.9192; superior female, 4.4747; superior male, 4.5050. A comparison of the ratings reveals that both the average and the superior male applicants were rated higher than equally qualified female applicants, but that the variation in the ratings was slightly larger for average applicants. Figure 6 illustrates that the interaction is due to the larger variation for average applicants.

TABLE 51

ANALYSIS OF VARIANCE, BETWEEN AND WITHIN SUBJECTS, ON PROFESSIONAL ACTIVITIES

Source of Variation	df	SS	MS	F	P
Between Subjects	98	28.0041	.285656		
Within Subjects					
Sex	1	6.5682	6.5682	31.8940	.0001
Qualifications	1	14.9722	14.9722	29.8957	.0001
Sex & Qualifications	1	.24005	.24005	17.1804[a]	.0001
Error					
Sex	98	20.181826	.205937		
Qualifications	98	36.777734	.375283		
Sex & Qualifications	98	1.369354	.013973		

[a] Significant at the .05 level.

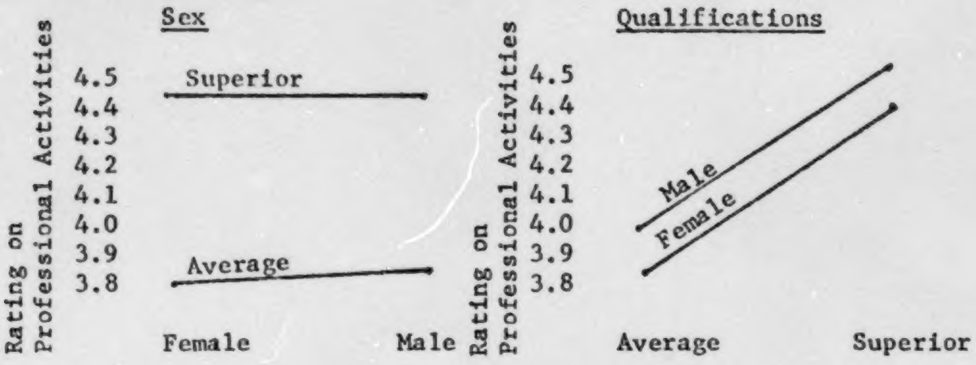

Figure 6: Ratings on Professional Activities by Sex and Qualifications

Subsequent *t*-test analyses were used to test for main effect differences due to sex. The results of these analyses, as presented in Table 52, show that the *t* values were -1.03 for average applicants and -0.60 for superior applicants. No significant differences were indicated, and Hypothesis H_{02c} was accepted.

TABLE 52

RESULTS OF *t*-TEST ANALYSES FOR MAIN EFFECT DIFFERENCES IN PROFESSIONAL ACTIVITIES RATINGS DUE TO SEX

Level of Qualifications	N	Female Mean	SD	N	Male Mean	SD	*t*	Probability
Average	99	3.8586	0.742	99	3.9192	0.710	-1.30	> .05
Superior	99	4.4747	0.628	99	4.5050	0.612	-0.60	> .05

df = 98 p .05 = -1.658

Hypothesis H_{02d}: Written Recommendations

The Analysis of Variance on the variable of written recommendations produced the results in Table 53, which show a significant interaction effect, as indicated by an 'F' value of 47.9441.

Examination of the mean ratings on written recommendations in Table 7 shows that the rating for the average female applicant was the same as for the average male (4.0505). However, the rating for the superior male applicant (4.5455) was higher than for the equally qualified female (4.5050). Figure 7 reveals the nature of the interaction which resulted from the higher rating for the superior male applicant.

TABLE 53

ANALYSIS OF VARIANCE, BETWEEN AND WITHIN SUBJECTS, ON WRITTEN RECOMMENDATIONS

Source of Variation	df	SS	MS	F	P
Between Subjects	98	29.799295	.304074		
Written Subjects					
Sex	1	12.7298	12.7298	42.9879	.0001
Qualification	1	1.8409	1.8409	7.5456	.0072
Sex & Qualifications	1	.7956	.7956	47.9441[a]	.0001
Error					
Sex	98	29.020152	.296124		
Qualification	98	23.90906	.243970		
Sex & Qualifications	98	1.626261	.016595		

[a] Significant at the .05 level

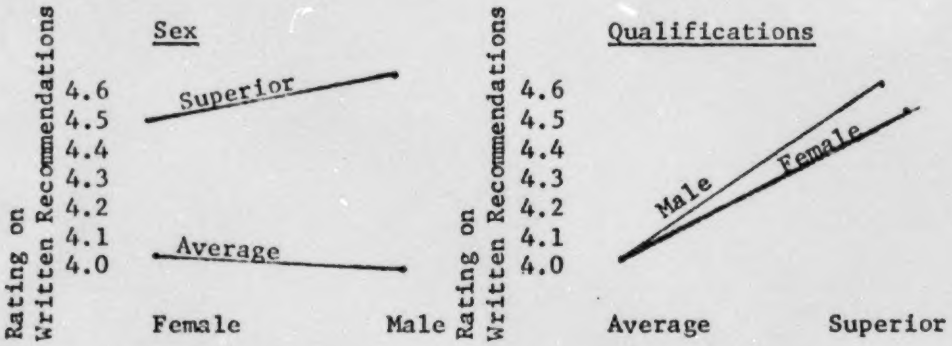

Figure 7: Ratings on Written Recommendations by Sex and Qualifications

Because there was a significant interaction between the main effects variables, separate *t*-tests were conducted to test for differences due to sex. The data from these analyses (Table 54) show no difference in the ratings for average applicants (*t* = 0.0). For superior applicants, the difference was not statistically significant (*t* = -0.89). On the basis of these analyses, Hypothesis H_{02d} was accepted.

TABLE 54

RESULTS OF *t*-TEST ANALYSES FOR MAIN EFFECT DIFFERENCES IN WRITTEN RECOMMENDATIONS RATINGS DUE TO SEX

Level of Qualifications	N	Female Mean	SD	N	Male Mean	SD	*t*	Probability
Average	99	4.0505	0.734	99	4.0505	0.720	0.0	$> .05$
Superior	99	4.5050	0.595	99	4.5455	0.627	-0.89	$> .05$

df = 98   p .05 = -1.658

Hypothesis H_{02e}: Leadership Potential

The data produced by the Analysis of Variance on the variable of leadership potential are presented in Table 55. The results show an 'F' value of 46.8169, representing the combined effect of sex and qualifications. This interaction effect was statistically significant at the .05 level. A comparison of the mean ratings on leadership potential (Table 46) reveals identical ratings for the average female and average male applicants (3.8283), but a higher rating for the superior male (4.5050) than for the superior female (4.4646). The interaction is graphically illustrated in Figure 8, showing that the interaction was caused by the variation in the ratings for superior applicants.

TABLE 55

ANALYSIS OF VARIANCE, BETWEEN AND WITHIN SUBJECTS, ON LEADERSHIP POTENTIAL

Source of Variation	df	SS	MS	F	P
Between Subjects	98	31.581578	.322261		
Within Subjects					
Sex	1	15.7601	15.7601	64.3806	.0001
Qualifications	1	7.6389	7.6389	20.7308	.0001
Sex & Qualifications	1	.9850	.9850	46.8169[a]	.0001
Error					
Sex	98	23.98991	.244795		
Qualifications	98	36.111158	.368481		
Sex & Qualifications	98	2.061871	.0210395		

[a]Significant at the .05 level .

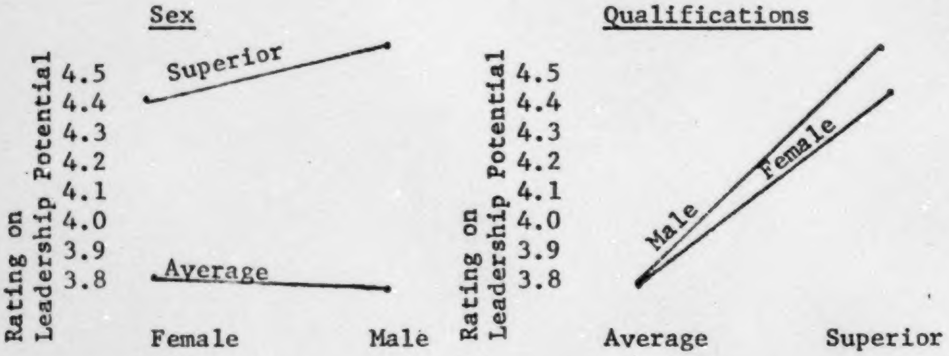

Figure 8: Ratings on Leadership Potential by Sex and Qualifications

The results of the t-test analysis used to test for main effect differences due to sex for each level of qualifications are found in Table 56. The data indicate no difference in the ratings for average applicants ($t = 0.0$). The difference in the ratings for superior applicants was not significant at the .05 level, as indicated by a t value of -0.75. Hypothesis H_{02e} was therefore accepted.

TABLE 56

RESULTS OF t-TEST ANALYSES FOR MAIN EFFECT DIFFERENCES IN LEADERSHIP POTENTIAL RATINGS DUE TO SEX

Level of Qualifications	N	Female Mean	SD	N	Male Mean	SD	t	Probability
Average	99	3.8283	0.809	99	3.8283	0.756	0.0	> .05
Superior	99	4.4646	0.644	99	4.5050	0.645	-0.75	> .05

df = 98 p .05 = -1.658

Hypothesis H_{02f}: Interpersonal Skills

The results of the Analysis of Variance on the variable of interpersonal skills, found in Table 57, show that the variation due to the interaction of the main effects variables produced an 'F' value of 6.5820, which was significant at the .05 level. The mean ratings on interpersonal skills in Table 46 were as follows: average female, 3.7879; average male, 3.7071; superior female, 4.2121; superior male, 4.1919. A comparison of the ratings reveals that both the average and superior female applicants received higher ratings than equally qualified male applicants, but that the variation in the ratings for average applicants was larger than for superior applicants. Figure 9 illustrates that the interaction is due to the larger variation for average applicants.

The results of the analyses for main effect differences due to sex are presented in Table 58. Positive t values of 1.65 for average applicants and 0.35 for superior applicants indicate that the differences in ratings favored female applicants. Based on these analyses, Hypothesis H_{02f} was accepted.

TABLE 57

ANALYSIS OF VARIANCE, BETWEEN AND WITHIN SUBJECTS, ON INTERPERSONAL SKILLS

Source of Variation	df	SS	MS	F	P
Between Subjects	98	42.706734	.435783		
Within Subjects					
Sex	1	.3056	.3056	1.2506	.2662
Qualifications	1	12.0227	12.0227	34.4236	.0001
Sex & Qualifications	1	.11505	.11505	6.5820[a]	.0119
Error					
Sex	98	23.944438	.244331		
Qualifications	98	34.227284	.349258		
Sex & Qualifications	98	1.71304	.017480		

[a] Significant at the .05 level

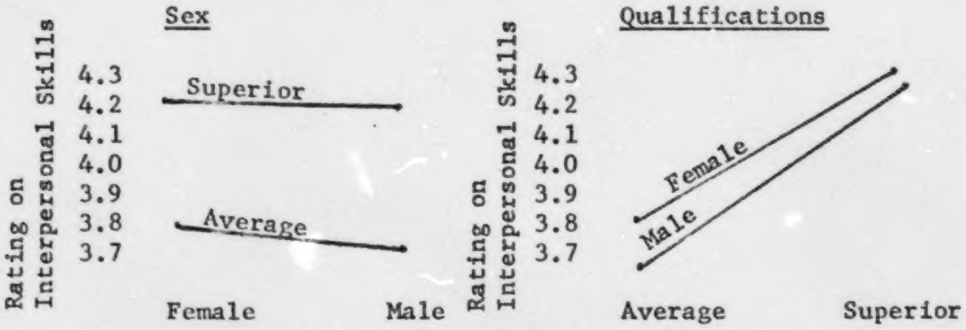

Figure 9: Ratings on Interpersonal Skills by Sex and Qualifications

TABLE 58

RESULTS OF *t*-TEST ANALYSES FOR MAIN EFFECT DIFFERENCES IN INTERPERSONAL SKILLS RATINGS DUE TO SEX

Level of Qualifications	N	Female Mean	SD	N	Male Mean	SD	*t*	Probability
Average	99	3.7879	0.812	99	3.7071	0.773	1.65	> .05
Superior	99	4.2121	0.812	99	4.1919	0.865	0.35	> .05

df = 98   p .05 = -1.658

Hypothesis H_{02g}: Career Commitment

It was not possible to test for interaction effects in relation to this hypothesis because of a peculiarity of the responses which produced a singularity in the X matrix and prevented completion of the Analysis of Variance. This is in keeping with information presented by Finn (1968). A comparison of the mean ratings on this variable (Table 46) reveals a very slight variation in the ratings for average applicants (female, 4.0202; male, 4.0000) and no variation in the ratings for superior applicants (female and male, 4.5556). These figures indicate no interaction effect.

This hypothesis was tested by means of *t*-tests for simple main effect differences due to sex for each level of qualifications. The results of these analyses (Table 59) show that the difference in the ratings for average applicants (*t* = 0.45) was in favor of the female and that there was no difference for superior applicants (*t* = 0.0). Hypothesis H_{02g} was therefore accepted.

TABLE 59

RESULTS OF t-TEST ANALYSES FOR MAIN EFFECT DIFFERENCES IN CAREER COMMITMENT RATINGS DUE TO SEX

Level of Qualifications	N	Female Mean	SD	N	Male Mean	SD	t	Probability
Average	99	4.0202	0.742	99	4.0000	0.782	0.45	>.05
Superior	99	4.5556	0.658	99	4.5556	0.785	0.00	>.05

df = 98   p .05 = -1.658

Comparisons Based on Demographic Data

Analysis of the demographic characteristics of the respondents revealed that the typical respondent was a male, 40 years of age, with 10-15 years professional experience in vocational education. He was likely to hold a position as a vocational school principal, as an administrator in the community college system, or as a division or unit director in the Bureau of Vocational Education. If he had received professional preparation in a vocational program area, it was most likely to have been in agriculture or industrial education. A more detailed summary of the demographic characteristics of the respondents is found in Appendix N.

A series of one-tailed t-tests were used to analyze the responses within specific groups by demographic characteristics of the respondents. Comparisons were made within groups by age, years experience in vocational education, area of professional preparation, highest degree held, and position title. It was not feasible to analyze responses by sex of respondent, because the sample was more than 90 percent male.

For each group, separate t-tests were conducted for each of the eight variables for each level of qualifications. The major findings of these analyses are reported in the following sections.

Age of Respondents

Responses were analyzed within three age groups: under 40 years of age, 40 to 50 years of age, and over 50 years of age. A summary of the responses of each age group is found in Appendix O.

Under 40 years of age. The analyses revealed that respondents under 40 years of age rated the average male applicant higher on only two variables: professional activities and leadership potential. The results of these analyses in Table 60 show t values of -0.30 for professional activities and -0.37 for leadership potential, neither of which was statistically significant. Analyses of the ratings for superior applicants, as indicated in Table 60, revealed non-significant differences favoring the male applicant on educational background, employment experience, professional activities, written recommendations, leadership potential, career commitment, and overall rating.

40 to 50 years of age. The results of analyses of responses for the 40 to 50 age group are found in Table 61. The data show that the ratings for the average male applicant were higher on several variables: educational background, employment experience, professional activities, written recommendations, leadership potential, interpersonal skills, and overall rating. However, none of these differences were statistically significant.

For superior applicants, there was a significant difference at the .05 level on the variable of employment experience. The results

TABLE 60

RESULTS OF t-TEST ANALYSES FOR SEX DIFFERENCES IN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS BY RESPONDENTS UNDER 40 YEARS OF AGE

Variable	Number	Average Qualifications						Superior Qualifications					
		Female		Male		t	Probability	Female		Male		t	Probability
		Mean	SD	Mean	SD			Mean	SD	Mean	SD		
Educational background	29							4.8621	0.351	4.8966	0.409	-0.37	>.05
Employment experience	29							4.8276	0.384	4.8621	0.351	-0.44	>.05
Professional activities	29	4.1034	0.722	4.1379	0.743	-0.30	>.05	4.5517	0.572	4.5862	0.501	-0.57	>.05
Written recommendations	29							4.4828	0.634	4.5517	0.686	-0.70	>.05
Leadership potential	29	4.0000	0.802	4.0345	0.731	-0.37	>.05	4.5862	0.568	4.6207	0.677	-0.44	>.05
Career commitment	29							4.6897	0.660	4.7586	0.636	-0.57	>.05
Overall rating								32.2758	2.951	32.5517	3.334	-0.75	>.05

TABLE 61

RESULTS OF t-TEST ANALYSES FOR SEX DIFFERENCES IN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS BY RESPONDENTS 40 to 50 YEARS OF AGE

Variable	N	Average Qualifications						Superior Qualifications					
		Female		Male		t	Probability	Female		Male		t	Probability
		Mean	SD	Mean	SD			Mean	SD	Mean	SD		
Educational background	41	3.6829	0.650	3.7317	0.633	-0.63	> .05	4.7805	0.419	4.8049	0.401	-1.00	> .05
Employment experience	41	3.3171	0.756	3.3415	0.656	-0.26	> .05	4.1951	0.782	4.3902	0.737	-2.08	< .05
Professional activities	41	3.7805	0.791	3.8537	0.727	-0.77	> .05						
Written recommendations	41	3.9756	0.724	4.0244	0.724	-0.53	> .05	4.5854	0.499	4.6585	0.480	-1.36	> .05
Leadership potential	41	3.6829	0.820	3.7805	0.725	-0.94	> .05	4.4634	0.636	4.5366	0.596	-0.90	> .05
Interpersonal skills	41	3.5366	0.840	3.5854	0.741	-0.70	> .05						
Overall rating	41	25.8537	3.921	26.1707	3.427	-1.06	> .05	31.2927	2.969	31.4878	3.218	-0.72	> .05

of the analysis on this variable (Table 61) show that the mean rating for the superior male applicant (4.3902) was significantly higher than the rating for the equally qualified female (4.1951). The superior male was also rated higher, though not significantly so, on four other variables: educational background, written recommendations, leadership potential, and overall rating.

Over 50 years of age. Analyses of the responses in the over-50 age group revealed no significant differences in the ratings for equally qualified male and female applicants, as indicated by the data presented in Table 62. The rating for the average male applicant was higher on the variable of professional activities, but the difference was not statistically significant. Table 62 also shows non-significant differences in favor of the superior male applicant on the variables: employment experience, professional activities, interpersonal skills, and overall rating.

Experience in Vocational Education

Responses were analyzed in three categories based on the respondents' length of experience in vocational education: less than 10 years, 10 to 20 years, and more than 20 years. The mean ratings for each group are summarized in Appendix O.

Less than 10 years of experience. Respondents with less than 10 years experience in vocational education rated male applicants higher on only three variables, as indicated in Table 63. The data show that the average male received a higher rating on the variables of educational background (3.7429) and professional activities (4.0000). These differences were not statistically significant. There were

TABLE 62

RESULTS OF t-TEST ANALYSES FOR SEX DIFFERENCES IN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS BY RESPONDENTS OVER 50 YEARS OF AGE

Variable	N	Average Qualifications						Superior Qualifications					
		Female		Male		t	Probability	Female		Male		t	Probability
		Mean	SD	Mean	SD			Mean	SD	Mean	SD		
Employment Experience	29							4.3103	0.891	4.3448	0.857	-0.25	>.05
Professional Activities	29	3.7241	0.591	3.7931	0.620	-0.70	>.05	4.3448	0.721	4.4483	0.686	-0.90	>.05
Interpersonal Skills	29							4.1379	0.789	4.2069	0.620	-0.57	>.05
Overall Rating	29							30.6552	4.253	30.8276	3.496	-0.34	>.05

df = 28 p.05 = -1.701

TABLE 63

RESULTS OF *t*-TEST ANALYSES FOR SEX DIFFERENCES IN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS BY RESPONDENTS WITH LESS THAN 10 YEARS EXPERIENCE IN VOCATIONAL EDUCATION

Variable	N	Average Qualifications						Superior Qualifications					
		Female		Male		*t*	Probability	Female		Male		*t*	Probability
		Mean	SD	Mean	SD			Mean	SD	Mean	SD		
Educational background	35	3.7143	0.572	3.7429	0.611	-0.57	>.05	4.8000	0.406	4.8571	0.430	-0.70	>.05
Employment experience	35							4.6286	0.598	4.6857	0.530	-0.81	>.05
Professional activities	35	3.8571	0.772	4.0000	0.728	-1.54	>.05						

df = 34 p. 05 = -1.684

non-significant differences favoring the superior male applicant on educational background and employment experience (Table 63).

10 to 20 years of experience. Results of the *t*-tests analyses of responses in the category of 10 to 20 years of experience are found in Table 64. As indicated, the mean ratings for average applicants favored the male on five variables. These variables were educational background, employment experience, leadership potential, career commitment, and overall rating. None of these differences were statistically significant.

Data presented in Table 64 reveal that on the variable of written recommendations the rating for the superior male applicant (4.5556) was significantly higher (*t* = -1.70) than the rating for the equally qualified female (4.4444). Non-significant differences in favor of the male were found on five other variables: employment experience, professional activities, leadership potential, career commitment, and overall rating.

More than 20 years of experience. Analysis of the ratings by respondents with more than 20 years of experience in vocational education revealed no significant differences for equally qualified male and female applicants. The results of the analysis for average applicants in Table 65 show a non-significant difference favoring the male on only one variable: professional activities. The mean rating for the average male applicant was 3.7368 as compared to a mean of 3.5789 for the average female. As indicated in Table 65, the superior male applicant received higher ratings on five variables: educational background, employment experience, professional

TABLE 64

RESULTS OF t-TEST ANALYSES FOR SEX DIFFERENCES IN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS BY RESPONDENTS WITH 10 TO 20 YEARS EXPERIENCE IN VOCATIONAL EDUCATION

Variable	N	Average Qualifications						Superior Qualifications					
		Female		Male		*t*	Probability	Female		Male		*t*	Probability
		Mean	SD	Mean	SD			Mean	SD	Mean	SD		
Educational background	45	3.7333	0.780	3.7556	0.743	-0.33	> .05						
Employment experience	45	3.5111	0.869	3.5556	0.755	-0.50	> .05	4.3111	0.848	4.4222	0.753	-1.09	> .05
Professional activities	45							4.4889	0.589	4.5556	0.586	-1.35	> .05
Written recommendations	45							4.4444	0.624	4.5556	0.586	-1.70	< .05
Leadership potential	45	3.8444	0.824	3.9556	0.737	-1.09	> .05	4.4889	0.626	4.5333	0.625	-0.53	> .05
Career commitment	45	4.1111	0.745	4.1333	0.815	-0.30	> .05	4.5778	0.657	4.6000	0.654	-0.44	> .05
Overall rating	45	27.0000	4.172	25.1555	3.630	-0.52	> .05	31.2889	3.217	31.5778	3.327	-0.99	> .05

df = 44 p. 05 = -1.671

TABLE 65

RESULTS OF t-TEST ANALYSES FOR SEX DIFFERENCES IN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS BY RESPONDENTS WITH MORE THAN 20 YEARS EXPERIENCE IN VOCATIONAL EDUCATION

Variable	N	Average Qualifications						Superior Qualifications					
		Female		Male		*t*	Probability	Female		Male		*t*	Probability
		Mean	SD	Mean	SD			Mean	SD	Mean	SD		
Educational background	19							4.6316	0.761	4.7368	0.452	-0.62	> .05
Employment experience	19							4.2632	0.806	4.4211	0.902	-1.00	> .05
Professional activities	19	3.5789	0.607	3.7368	0.562	-1.37	> .05	4.1579	0.834	4.3684	0.684	-1.17	> .05
Leadership potential	19							4.2632	0.733	4.4211	0.607	-1.14	> .05
Overall rating	19							30.4211	4.337	30.9474	3.100	-0.74	> .05

df = 18   p .05 = -1.734

activities, leadership potential, and overall rating. These differences were not statistically significant.

Professional Preparation

Analysis of responses based on professional preparation of respondents was conducted within two groups: respondents with preparation in a vocational program area and those with preparation outside vocational education. The responses for each group are summarized in Appendix O.

Professional preparation in vocational education. The results of the analyses for respondents with professional preparation in vocational education (Table 66) show non-significant differences favoring the average male applicant on five variables. These variables were employment experience, written recommendations, leadership potential, career commitment, and overall rating.

For applicants with superior qualifications, the analyses revealed a significantly higher rating for the male applicant on the variable of leadership potential. The results of the analysis of this variable in Table 66 show the rating for the superior male applicant (4.5172), the rating for the superior female applicant (4.3996), and a t value of -1.73, which was significant at the .05 level. There were non-significant differences in favor of the superior male applicant on educational background, employment experience, professional activities, written recommendations, and overall rating.

Professional preparation outside vocational education. Analysis of the ratings of respondents with professional preparation

TABLE 66.

RESULTS OF t-TEST ANALYSES FOR SEX DIFFERENCES IN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS BY RESPONDENTS WITH PROFESSIONAL PREPARATION IN VOCATIONAL EDUCATION

Variable	N	Average Qualifications						Superior Qualifications					
		Female		Male		t	Probability	Female		Male		t	Probability
		Mean	SD	Mean	SD			Mean	SD	Mean	SD		
Educational background	58							4.7586	0.572	4.7931	0.450	-0.57	> .05
Employment experience	58	3.5690	0.819	3.6034	0.724	-0.50	> .05	4.3621	0.831	4.4483	0.799	-1.04	> .05
Professional activities	58							4.3966	0.699	4.4655	0.627	-1.07	> .05
Written recommendations	58	4.0862	0.732	4.1724	0.704	-1.04	> .05	4.4828	0.655	4.5517	0.597	-1.43	> .05
Leadership potential	58	3.8966	0.765	3.9310	0.101	-0.44	> .05	4.3966	0.674	4.5172	0.628	-1.73	< .05
Career commitment	58	4.0172	0.737	4.0345	0.816	-0.30	> .05						
Overall rating	58	27.2069	3.861	27.2586	3.777	-0.23	> .05	31.0690	3.627	31.3965	3.382	-1.10	> .05

df = 57 p. 05 = -1.671

outside vocational education produced the results found in Table 67. As indicated, the average male applicant received a higher rating on only two variables: educational background and professional activities. Differences in ratings which favored the superior male applicant were found on employment experience, career commitment, and overall rating. None of the differences were statistically significant.

Highest Degree Held

Responses based on highest degree held were analyzed in two categories: respondents who held a master's degree or less and respondents with a specialist or doctorate. A summary of the responses for each group is found in Appendix O.

Masters degree or less. The analyses revealed no significant differences in the ratings for equally qualified male and female applicants among respondents who held a master's degree or less. Results of the analyses for average applicants (Table 68) show non-significant differences in favor of the male applicant on six variables: educational background, employment experience, professional activities, written recommendations, leadership potential, and overall rating. The data also reveal non-significant differences which favored the superior male applicant on seven variables: educational background, employment experience, professional activities, written recommendations, leadership potential, career commitment, and overall rating.

Specialist or doctorate. Among respondents who held the specialist or doctoral degree, there were no differences favoring

TABLE 67

RESULTS OF t-TEST ANALYSES FOR SEX DIFFERENCES IN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS BY RESPONDENTS WITH PROFESSIONAL PREPARATION OUTSIDE VOCATIONAL EDUCATION

Variable	N	Average Qualifications						Superior Qualifications					
		Female		Male		t	Probability	Female		Male		t	Probability
		Mean	SD	Mean	SD			Mean	SD	Mean	SD		
Educational background	41	3.4878	0.746	3.5366	0.745	-0.70	> .05						
Employment experience	41							4.4878	0.675	4.6098	0.586	-1.40	> .05
Professional activities	41	3.7805	0.759	3.9268	0.685	-1.43	> .05						
Career commitment	41							4.6341	0.581	4.6585	0.617	-0.33	> .05
Overall rating	41							31.8537	3.071	31.9024	3.368	-0.17	> .05

df = 40   p .05 = -1.684

TABLE 68

RESULTS OF *t*-TEST ANALYSES FOR SEX DIFFERENCES IN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS BY RESPONDENTS WITH A MASTERS DEGREE OR LESS

Variable	N	Average Qualifications						Superior Qualifications					
		Female		Male		*t*	Probability	Female		Male		*t*	Probability
		Mean	SD	Mean	SD			Mean	SD	Mean	SD		
Educational background	48	3.9167	0.647	3.9375	0.598	-0.24	> .05	4.7292	0.610	4.7500	0.484	-0.27	> .05
Employment experience	48	3.5625	0.823	3.6250	0.703	-0.77	> .05	4.3958	0.792	4.4375	0.823	-0.53	> .05
Professional activities	48	3.8750	0.789	4.0000	0.772	-1.29	> .05	4.3542	0.729	4.4583	0.617	-1.53	> .05
Written recommendations	48	4.0417	0.743	4.0625	0.755	-0.24	> .05	4.4792	0.684	4.5208	0.652	-0.63	> .05
Leadership potential	48	3.8542	0.825	3.9167	0.794	-0.65	> .05	4.3958	0.644	4.4792	0.618	-1.27	> .05
Career commitment	48							4.3958	0.765	4.4167	0.919	-0.15	> .05
Overall rating	48	27.0417	4.089	27.2708	3.836	-0.75	> .05	39.9792	3.806	31.2708	3.394	-0.91	> .05

df = 47   p .05 = -1.671

average male applicants. For applicants with superior qualifications, the analyses revealed a significantly higher rating for the male applicant on the variable of employment experience. The results of this analysis in Table 69 show a rating for the superior male applicant of 4.5882, which was higher than the rating for the equally qualified female (4.4314). The $\underline{t}$ value of -1.74 was statistically significant at the .05 level. The information in Table 69 also shows that the superior male applicant was rated higher, though not significantly so, on three other variables: educational background, written recommendations, and overall rating.

Position Title

Responses were analyzed in three groups on the basis of position title: respondents who were administrators at the state level, respondents who were regional or local administrators, and those who were administrators in the community college system. Appendix O contains a summary of the group responses.

Administrators at the state level. Analyses of the responses of state level administrators revealed no significant differences in ratings for average applicants. The results of these analyses in Table 70 show that there were non-significant differences favoring the male applicant on five variables: employment experience, professional activities, interpersonal skills, career commitment, and overall rating. The difference in ratings on the variable, professional activities, produced a $\underline{t}$ value of -1.65 which approached significance ($p < .055$).

TABLE 69

RESULTS OF t-TEST ANALYSES FOR SEX DIFFERENCES IN RATINGS ON VARIABLES FOR SUPERIOR APPLICANTS BY RESPONDENTS WITH SPECIALIST OR A DOCTORAL DEGREE

Variable	N	Female Mean	SD	N	Male Mean	SD	t	Probability
Educational background	51	4.8039	0.401	51	4.8235	0.434	-0.37	> .05
Employment experience	51	4.4314	0.755	51	4.5882	0.606	-1.74	< .05
Written recommendations	51	4.5294	0.504	51	4.5686	0.608	-0.63	> .05
Overall rating	51	31.7843	2.982	51	31.9216	3.346	-0.49	> .05

df = 50   p .05 = -1.671

For superior applicants, the analysis revealed a significant difference on the variable of professional activities. The results of the analysis on this variable, presented in Table 70, show that the rating for the male applicant (4.5185) was significantly higher than the rating for the equally qualified female (4.4074). The data also show non-significant differences in favor of the male on the variables of employment experience, written recommendations, leadership potential, interpersonal skills, and overall rating.

Regional and local administrators. Results of the analysis of responses of regional and local administrators, presented in Table 71, show that the average male applicant received a higher rating on the variables of written recommendations and leadership potential. For applicants with superior qualifications, the male was rated higher on five variables: employment experience,

TABLE 70

RESULTS OF t-TEST ANALYSES FOR SEX DIFFERENCES IN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS BY RESPONDENTS WHO WERE ADMINISTRATORS AT THE STATE LEVEL

Variable	N	Average Qualifications						Superior Qualifications					
		Female		Male		t	Probability	Female		Male		t	Probability
		Mean	SD	Mean	SD			Mean	SD	Mean	SD		
Employment experience	27	3.5556	0.974	3.7407	0.712	-1.41	> .05	4.4444	0.698	4.5556	0.641	-1.36	> .05
Professional activities	27	3.9259	0.781	4.1481	0.770	-1.65	> .05[a]	4.4074	0.636	4.5185	0.580	-1.80	< .05
Written recommendations	27							4.5185	0.580	4.5556	0.577	-0.44	> .05
Leadership potential	27							4.4815	0.643	4.5185	0.580	-0.57	> .05
Interpersonal skills	27	3.6296	0.926	3.6667	0.961	-0.44	> .05	4.0370	0.980	4.0741	0.958	-0.44	> .05
Career commitment	27	4.0741	0.730	4.1481	0.864	-0.70	> .05						
Overall rating	27	27.2963	4.295	27.7778	4.126	-1.10	> .05	31.2592	3.108	31.5555	3.004	-1.28	> .05

df = 26 p .05 = -1.706

[a] $p < .055$

TABLE 71

RESULTS OF *t*-TEST ANALYSES FOR SEX DIFFERENCES IN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS BY RESPONDENTS WHO WERE REGIONAL AND LOCAL ADMINISTRATORS

Variable	N	Average Qualifications						Superior Qualifications					
		Female		Male		*t*	Probability	Female		Male		*t*	Probability
		Mean	SD	Mean	SD			Mean	SD	Mean	SD		
Employment experience	50							4.3200	0.868	4.3800	0.830	-0.62	>.05
Professional activities	50							4.5000	0.678	4.5200	0.646	-0.27	>.05
Written recommendations	50	4.0200	0.714	4.0600	0.682	-0.47	>.05	4.4800	0.646	4.5200	0.707	-0.57	>.05
Leadership potential	50	3.7600	0.744	3.8000	0.670	-0.47	>.05	4.4000	0.700	4.4800	0.707	-0.89	>.05
Overall rating	50							31.2800	3.747	31.4000	3.876	-0.33	>.05

df = 49 p .05 = -1.671

professional activities, written recommendations, leadership potential, and overall rating. These differences were not statistically significant.

Administrators in the community college system. The data in Table 72 show the results of the analysis of responses of administrators in the community college system. As indicated, the average male applicant received a higher rating on only one variable: professional activities. The difference was not significant.

The analysis for superior applicants (Table 72) revealed a significant difference in the ratings for male and female applicants on career commitment. The rating for the male applicant on this variable (4.7500) was significantly higher than the rating for the equally qualified female (4.5500). Table 72 also shows non-significant differences favoring the male applicant on four other variables: educational background, employment experience, written recommendations, and overall rating.

TABLE 72

RESULTS OF t-TEST ANALYSES FOR SEX DIFFERENCES IN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS BY RESPONDENTS WHO WERE ADMINISTRATORS IN THE COMMUNITY COLLEGE SYSTEM

Variable	N	Average Qualifications						Superior Qualifications					
		Female		Male		t	Probability	Female		Male		t	Probability
		Mean	SD	Mean	SD			Mean	SD	Mean	SD		
Educational background	20							4.8000	0.410	4.8500	0.366	-1.00	> .05
Employment experience	20							4.6000	0.598	4.7500	0.444	-1.14	> .05
Professional activities	20	3.7000	0.733	3.7500	0.693	-0.44	> .05						
Written recommendations	20							4.5000	0.513	4.5500	0.510	-0.57	> .05
Career commitment	20							4.5500	0.605	4.7500	0.444	-1.72	< .05
Overall rating	20							31.8500	3.117	32.1000	2.634	-0.58	> .05

df = 19   p .05 = -1.729

SUMMARY OF FINDINGS

The major findings of the study are presented as follows: overall rating of applicants, followed by rating of applicants on specified criteria; i.e., educational background, employment experience, professional activities, written recommendations, leadership potential, interpersonal skills, and career commitment. A brief discussion of the findings relative to demographic characteristics of the respondents is also included.

Overall Rating of Applicants

There was a significant interaction between sex of applicant and level of qualifications for this variable due to a relatively larger variation in the ratings for superior applicants. The higher rating for average applicants was in favor of the female; for superior applicants, the higher rating favored the male.

There were no significant differences in the overall ratings for equally qualified male and female applicants. This finding was consistent for both average and superior qualifications across all respondent groups, regardless of age, length of experience, area of professional preparation, degree held, or position title. However, the superior male applicant was evaluated higher, though not significantly so, by the total sample and by all respondent groups except those with less than 10 years or more than 20 years experience in vocational education. There was no consistent pattern in the ratings for average applicants.

This finding is somewhat in contrast to that of Lewin and Duchan (1971) who found that heads of university departments of physical science tended to prefer an average male applicant over an average female but recognized a superior female. Simpson (1968) also found that female applicants for academic appointments were chosen over male applicants only when their superior qualifications could not be ignored.

Ratings of Applicants on Specific Criteria

Educational background. The analysis of educational background produced no significant interaction between sex of applicant and level of qualifications and no significant differences in the ratings for equally qualified male and female applicants. Non-significant differences for superior applicants tended to favor the male.

Employment experience. The combined effects of sex and qualifications produced a significant interaction in the ratings on employment experience. Both average and superior male applicants received higher ratings than the equally qualified female, but there was considerably greater variation between the ratings for superior male and female applicants.

The superior male applicant was rated significantly higher by the total sample, by respondents 40 to 50 years of age, and by respondents who held a specialist degree or a doctorate. Non-significant differences favoring the superior male applicant were found for the other respondent groups. Ratings for average applicants tended to be more equitable.

Professional activities. There was a significant interaction between sex and qualifications on this variable. Both average and superior male applicants received higher ratings than the equally qualified female, but there was a greater variation in the ratings for the average applicants.

Both average and superior male applicants were evaluated higher on professional activities by the total sample and by the following respondent groups: under age 40, over age 50, more than 20 years experience in vocational education, master's degree or less, and administrators at the state level. Among respondents who were administrators at the state level, the superior male applicant received a significantly higher rating than the equally qualified female; the difference favoring the average male applicant approached significance.

Written recommendations. The combined effects of sex and qualifications produced a significant interaction on the variable of written recommendations. The interaction was due to a higher rating for average applicants.

There was a significant difference in the ratings on this variable among respondents with 10 to 20 years of experience in vocational education. The superior male was rated significantly higher by this group than the equally qualified female. Non-significant differences favoring the superior male applicant were found in the total sample and in all other respondent groups except respondents over 50 years of age, those with less than 10 or more than 20 years experience, and those with professional preparation outside vocational education.

Leadership potential. The analysis on leadership potential revealed a significant interaction between sex of applicant and level of qualifications. The ratings for average applicants were identical, but for superior applicants the male was rated higher.

The superior male applicant received a significantly higher rating on this variable among respondents with professional preparation in a vocational program area. Non-significant differences in favor of the superior male were found in the total sample and in the following respondent groups: under age 40, 40 to 50 years of age, 10 to 20 years of experience in vocational education, more than 20 years experience in vocational education, master's degree or less, administrators at the state level, and regional and local administrators. There appeared to be no consistent pattern in responses with regard to average applicants.

Interpersonal skills. There was a significant interaction between sex and qualifications on the variable of interpersonal skills. Both the average and superior female applicants received ratings which were higher than the equally qualified male, but the variation in the ratings was considerably larger for superior

There was a definite pattern of higher ratings for both average and superior female applicants on this variable within the various respondent groups. This finding is consistent with the existing research evidence regarding the effectiveness of female administrators. Grobmen and Hines (1956) found that women principals ranked significantly ahead of men as democratic leaders. According to

Taylor (1973), Hemphill, Griffiths and Frederikson showed that women principals outscored men in ability to work with others. Gross and Trask (1976) found that women principals displayed a greater concern for individual differences among students and for their social and emotional development than did men principals.

Career commitment. It was not possible to test for interaction effects in relation to this variable because a peculiarity in the data prevented completion of the Analysis of Variance. Subsequent *t*-tests for differences due to sex in the total sample revealed a non-significant difference in favor of the average female applicant and no difference in the ratings for superior applicants.

There was a significant difference in the ratings for superior applicants among respondents who were administrators in the community college system. The superior male applicant received a significantly higher rating than the equally qualified female. The ratings for both average and superior applicants tended to be equal or to favor the female in other respondent groups.

Findings Relative to Demographic Characteristics of Respondents

Age. Respondents under 40 years of age tended toward higher ratings for superior male applicants; i.e., the superior male received a higher rating on all variables except interpersonal skills. None of these differences were significant. Ratings for average applicants in this group tended to be more equitable.

Respondents 40 to 50 years of age tended toward higher ratings for both average and superior male applicants with a significant difference favoring the superior male applicant on one variable: employment experience. Among respondents in the over 50 age group, the average female applicant was evaluated more favorably than the average male. There was no consistent pattern in the ratings for superior applicants. The findings relative to age of respondent differed from the findings of Zumbrun (1976) who found more positive attitudes toward women administrators among young superintendents.

Experience in vocational education. Analysis of the ratings by respondents with less than 10 years or more than 20 years of experience in vocational education revealed no consistent pattern in the responses. Respondents with 10 to 20 years of experience tended toward higher ratings for both average and superior male applicants. The difference favoring the male applicant on the variable of written recommendations was statistically significant. These findings compare favorably with those of Zumbrun (1976) who found more positive attitudes toward women administrators among superintendents who had less than 10 years of administrative experience.

Professional preparation. Respondents with professional preparation in vocational education tended toward higher ratings for both average and superior male applicants. The average male received higher ratings on five variables: employment experience, written recommendations, leadership potential, career commitment, and overall rating. None of these differences were significant.

Differences favoring the superior male applicant were found on all variables except interpersonal skills and career commitment. The rating for the male was significantly higher on leadership potential.

Among respondents with professional preparation outside vocational education, there was a trend toward more favorable ratings for the average female but no consistent pattern in the responses for superior applicants.

These findings are somewhat consistent with those of Dittman (1976) who found that vocational educators generally perceived male and female roles in a stereotypic manner. They also support Gillie's (1974) view that vocational educators hold traditional attitudes toward women's roles.

Highest degree held. Respondents who held a master's degree or less tended toward higher ratings for both average and superior male applicants. The average male received a higher rating on all variables except interpersonal skills and career commitment. Ratings for the superior male were higher except on interpersonal skills.

There was a trend toward higher ratings for the superior male among respondents with a specialist degree or a doctorate. The superior male applicant was rated significantly higher by this group on the variable of employment experience. There were no differences favoring the average male.

The findings relative to the educational level of respondents are in agreement with those of Zumbrun (1976). Her study of the attitudes of superintendents and school board members toward women administrators revealed more favorable attitudes among individuals who held a doctorate.

Position title. Respondents who were administrators at the state level generally evaluated the male applicant more favorably, regardless of qualifications. There was a significant difference favoring the superior male on the variable of professional activities; the difference favoring the average male on this variable approached significance.

Regional and local administrators, as well as administrators in the community college system, tended toward higher ratings for the superior male, but more equitable ratings for average applicants. The superior male was rated significantly higher by community college administrators on the variable of career commitment. These findings concur in part with those of Pfiffner (1973) who found discriminatory attitudes toward women administrators among community college personnel.

CONCLUSIONS

Analysis of the findings of this study provide a basis for a number of conclusions. Conclusions of bias in favor of males are based on significant differences favoring male applicants. Conclusions of preference for males are based on consistent patterns of higher ratings for male applicants. The following conclusions are drawn:

1. On the whole, administrators in vocational education expressed a strong preference for male applicants. Bias was indicated by the total sample on one variable, employment experience, and by specific groups of administrators

on five variables. For the entire sample and all administrative groups, expressions of bias (7) and preference (104) totaled 111 (of 224 possible responses). There were considerably more expressions of bias and preference for the superior male (70) than for the average male (41). See Table 73.

2. Bias in favor of male applicants was demonstrated by the total sample and/or selected groups on 5 of 8 variables: employment experience, professional activities, written recommendations, leadership potential, and career commitment. With regard to employment experience, bias was reflected for the superior male applicant, by the total sample, by administrators 40 to 50 years of age, and by those who held a specialist degree or a doctorate. See Table 73.

   Administrators at the state level showed bias favoring males on the variable of professional activities. Bias was indicated by a significantly higher rating for the superior male applicant and a higher rating, which approached significance, for the average male.

   Administrators with 10 to 20 years of experience in vocational education demonstrated bias in favor of superior male applicants in relation to written recommendations.

TABLE 73

SUMMARY OF BIAS AND PREFERENCE ON SELECTED VARIABLES, BY VOCATIONAL ADMINISTRATORS IN KENTUCKY, FOR AVERAGE AND SUPERIOR MALE APPLICANTS FOR ADMINISTRATIVE POSITIONS

	Overall Rating		Educational Background		Employment Experience		Professional Activities		Written Recommendations		Leadership Potential		Interpersonal Skills		Career Commitment		Total Average		Superior	
Group	Av.	Sup.	Av.	Sup.	Av.	Sup.	Av.	Sup.	Av.	Sup.	Av.	Sup.	Av.	Sup.	Av.	Sup.	Ⓑ	p	Ⓑ	p
Total Sample		p		p	p	Ⓑ	p	p		p		p						2	1	5
Under age 40		p		p		p	p	p		p	p	p				p		2		7
Ages 40 to 50	p	p	p	p	p	Ⓑ	p		p	p	p	p	p					7	1	4
Over age 50		p				p	p	p						p						4
Less than 10 years experience in vocational education			p	p		p	p											7		2
10-20 years experience in vocational education	p	p	p		p	p		p		Ⓑ	p	p			p	p		5	1	5
More than 20 years experience in vocational education				p		p	p	p				p						1		4
Professional preparation in vocational education	p	p		p	p	p		p	p	p	p	Ⓑ			p			5	1	5
Professional preparation outside vocational education		p	p			p	p									p		2		3
Masters Degree or less	p	p	p	p	p	p	p	p	p	p	p	p				p		6		7
Specialist Degree or Doctorate		p		p		Ⓑ				p									1	3
Administrators at state level	p	p			p	p	p	Ⓑ		p		p	p	p	p			5	1	5
Regional and local administrators		p				p		p	p	p	p	p						2		5
Administrators in Community College system		p		p		p	p			p						Ⓑ		1	1	4
Total (bias)						3		1		1		1				1			7	
Total (preference)	5	12	5	9	6	11	10	8	4	9	6	8	2	2	3	4		41		63
Total bias and preference (of a possible 28)	17		14		20		19		14		15		4		8		111 (of 224)			

Ⓑ - bias (significant differences favoring males) p = preference (n.s. differences favoring males)

Administrators who had received professional preparation in a vocational program area revealed bias favoring the superior male applicant with regard to leadership potential.

Administrators in the community college system demonstrated bias in favor of males in the variable of career commitment.

3. A preference for male applicants was demonstrated by the total sample and/or selected groups on 6 or 8 variables: overall rating, educational background, employment experience, professional activities, written recommendations, and leadership potential (See Table 73). For the total sample, the superior male applicant received higher ratings than the equally qualified female on each of these variables. In addition, preference for male applicants was expressed by administrators under age 40 and those between the ages of 40 and 50, administrators with 10 to 20 years of experience in vocational education; administrators who had received professional preparation in vocational education, those who held a master's degree or less, administrators at the state level, regional and local administrators, and administrators in the community college system.

Administrators under age 40 demonstrated a preference for the superior male applicant on 7 of the 8 variables, including overall rating. Administrators between the ages of 40 and 50 showed a preference for the average male applicant on 7 of 8 variables and for the superior male on 5 of 8 variables.

Administrators with 10 to 20 years of experience in vocational education expressed a preference for the average male on 5 of 8 variables and for the superior male on 6 of 8 variables.

Administrators who had received professional preparation in vocational education expressed a preference for both average and superior male applicants--the average male on 5 of 8 variables, the superior male on 6 of 8 variables.

Administrators who held a master's degree or less demonstrated a preference for the average male on 6 of 8 variables, and for the superior male applicant on 7 or 8 variables.

Administrators at the state level revealed a preference for both average and superior male applicants--for the average male on 5 of 8 variables, for the superior male on 6 of 8 variables. Regional and local administrators and those in the community college system showed a preference for the superior male applicant on 5 of 8 variables.

4. Administrators who demonstrated the strongest preference for male applicants were those who were between the ages of 40

and 50, had 10 to 20 years of experience in vocational education; had received professional preparation in a vocational program area; held a master's degree or less, and were administrators at the state level.

5. The female applicant with average qualifications was evaluated more favorably, in comparison to the equally qualified male, than was the female applicant with superior qualifications. For the total sample, the average female applicant received an employment rating that was equal to or higher than the average male on 6 of 8 variables: overall rating, educational background, written recommendations, leadership potential, interpersonal skills, and career commitment. The superior female, on the other hand, was rated equal to or higher than the superior male on two variables: interpersonal skills and career commitment.

   The average female was also evaluated more favorably by administrators under 40 and over 50 years of age, those with less than 10 or more than 20 years experience in vocational education, administrators who had received professional preparation outside vocational education, those with a specialist degree or a doctorate, regional and local administrators and administrators in the community college system. In each of these groups, there was a consistent pattern of ratings for the average female applicant equal to or higher than the ratings for the equally qualified male.

6. There was no substantial evidence of biased attitudes in favor of males on the following variables: educational background, interpersonal skills, and overall rating. No significant differences were found on these variables in the total sample or in any respondent group. There was no evidence of bias favoring males in the following groups of administrators: under 40 and over 50 years of age, less than 10 or more than 20 years of experience in vocational education, professional preparation outside vocational education, master's degree or less, and regional and local administrators.
7. No indication of preference for male applicants was found in the following groups of administrators: over 50 years of age; less than 10 years and more than 20 years of experience in vocational education, professional preparation outside vocational education, and specialist degree or doctorate.
8. Average and superior qualifications were evaluated differently, depending on the sex of the applicant. The larger variations in ratings, in general, for the superior applicants, with the higher rating in favor of the male applicant.
9. This study may be considered a reliable assessment of the sex-biased attitudes which influence the screening of applicants for administrative positions in vocational education in Kentucky. The findings do not reflect the bias which may exist at other steps in the employment process.

RECOMMENDATIONS

During the course of this study, and as a result of its findings, several problem areas were identified for further study and research. The recommendations which follow include additional studies of attitudes toward professional women in vocational education, as well as studies to identify other possible barriers to the employment of women in administrative positions.

1. A study of the attitudes of all professional personnel in vocational education should be made to determine if stereotyped attitudes of colleagues hinder career aspirations or advancement opportunities of women.
2. A study should be made of professional women in vocational education to determine if they possess appropriate certification and other qualifications for administrative positions.
3. Replication of this phase should be conducted on a regional or national basis. This would provide a basis for comparison of the findings of this study.
4. A study of stereotyped attitudes which may constitute bias favoring females should be made. Although this research effort focused on differences in employment ratings which reflected bias in favor of male applicants for administrative positions, there were a number of differences which suggested bias in favor of females. It is reasonable to assume that some of these differences might have been significant,

had the researcher tested for non-directional differences or for bias favoring females.

5. Opportunities should be provided for administrative personnel in vocational education to develop an awareness of their own stereotyped attitudes regarding sex roles. Particular attention should be given to increasing the awareness of administrators at the state level, since this group expressed a stronger preference for males than regional or local administrators or administrators in the community college system. A variety of approaches should be employed at the state, regional, and local levels, and in the community college system.
6. Pre-service and in-service teacher education programs in vocational education should address the issue of sex stereotyping, particularly as it relates to staffing patterns and the hiring and promotion of personnel. The data indicate that administrators who had received professional preparation in vocational education hold more biased attitudes toward women than those who had received preparation outside vocational education. Apparently, current teacher education programs in vocational education are not dealing with the problem effectively. Teacher education programs in agriculture and industrial education, from which ranks come the greatest number of vocational administrators, may merit special attention.
7. Graduate programs, particularly at the master's level, should be revised to include components on changing attitudes

toward, and expanding advancement opportunities for, professional women in vocational education. Consistent with state requirements for most administrative positions in vocational education, the greatest percentage (36%) of the administrators who participated in this study held a master's degree. As a group, administrators who held a master's degree or less expressed a stronger proference for males than those who held a higher degree. These findings suggest that the issue of sex-role stereotyping is not receiving adequate attention in graduate programs at the master's level.

8. Efforts should be made to identify potential women administrators and to encourage them to prepare and apply for administrative positions. Hiring and promotion procedures should be examined to insure that women applicants for administrative positions receive equal consideration. The expressed preference for the superior male applicant over the equally qualified female, as revealed in this study, suggests the probability that well-qualified women are being overlooked. The evidence also indicates that employers consider a woman applicant's qualifications, particularly her prior employment experience, less valuable than equal qualifications belonging to a man.

9. The findings of this study and other related research should be made available to the participants, state and regional advisory council members, the Sex Equity

Coordinator for Vocational Education, teacher educators and others who are involved in policy and decision making in vocational education in Kentucky. Such research-based data can be useful in designing strategies to correct inequalities which may exist in hiring and promotion procedures and to expand career opportunities for professional women in vocational education.

SUMMARY

The purpose of this study was to examine employer attitudes regarding the employment of women administrators in vocational education in Kentucky. The sample was composed of an intact group of 114 individuals who have responsibility for the hiring and promotion of administrators in vocational education at the state, regional, local, and community college levels in the state of Kentucky.

The research design used was a 2 x 2 experimental design with repeated measures. The respondents evaluated average and superior male and female applicants for administrative positions, based on two pairs of fictional resumes, each male/female pair matched for equal qualifications. Significant differences in employment ratings for equally qualified male and female applicants were used as a basis for the inference of sex-biased attitudes.

The instrument developed for the study included: four fictional resumes, a 7-item Employment Rating scale, and a form to obtain demographic data from the respondents. A 90 percent response rate was yielded. The data and hypotheses were tested by means of a two-way Analysis of Variance for Repeated Measures.

Analyses indicate a bias in favor of males based on significant differences favoring male applicants, or bias by the total and/or selected groups on five of the eight variables. The average female fared better in the evaluations than the superior female. The results indicate that bias may be found in the process of screening applicants for administrative positions in vocational education. Recommendations were offered to assist in eliminating this bias in the selection of administrators.

THE SYNTHESIZATION COMPONENT

By: Carolyn Litchfield
Carl Lamar
Marjorie Stewart
Project Advisory Committee

INTRODUCTION

STRATEGIES TO OVERCOME THE IMBALANCE

The Strategies

Implementing the Strategies

THE PLAN OF ACTION

INTRODUCTION

By virtue of federal legislation and public policy, vocational educators have responsibility for the elimination of sex bias, sex-role stereotyping, and sex discrimination in education and employment. In order to meet this responsibility, vocational educators face the challenge of improving the status of women in vocational education both as students and employees.

Facts clearly demonstrate that women are under-represented in the administration of vocational education. Emphasis has been placed on this problem, but little has been done in order to correct the situation. As a result, the imbalance of women in administrative positions in vocational education continues to exist. The results of a survey released by the National Organization on Women's Project on Equal Education Rights (PEER) identified Kentucky as one of the most inferior states in the area of equal vocational education (Peer Perspective, September 1979).

The five phases of the research component associated with this project focused on the reasons for the imbalance of women in administrative positions in vocational education in Kentucky. Information obtained indicated that certain factors exist which may contribute to this imbalance. Recommendations were offered with regard to the problem associated with each research phase to improve the situation. This information was utilized as an input for developing strategies which might be implemented in order to eliminate the imbalance. Other inputs are illustrated in Figure 10. They include the advisory

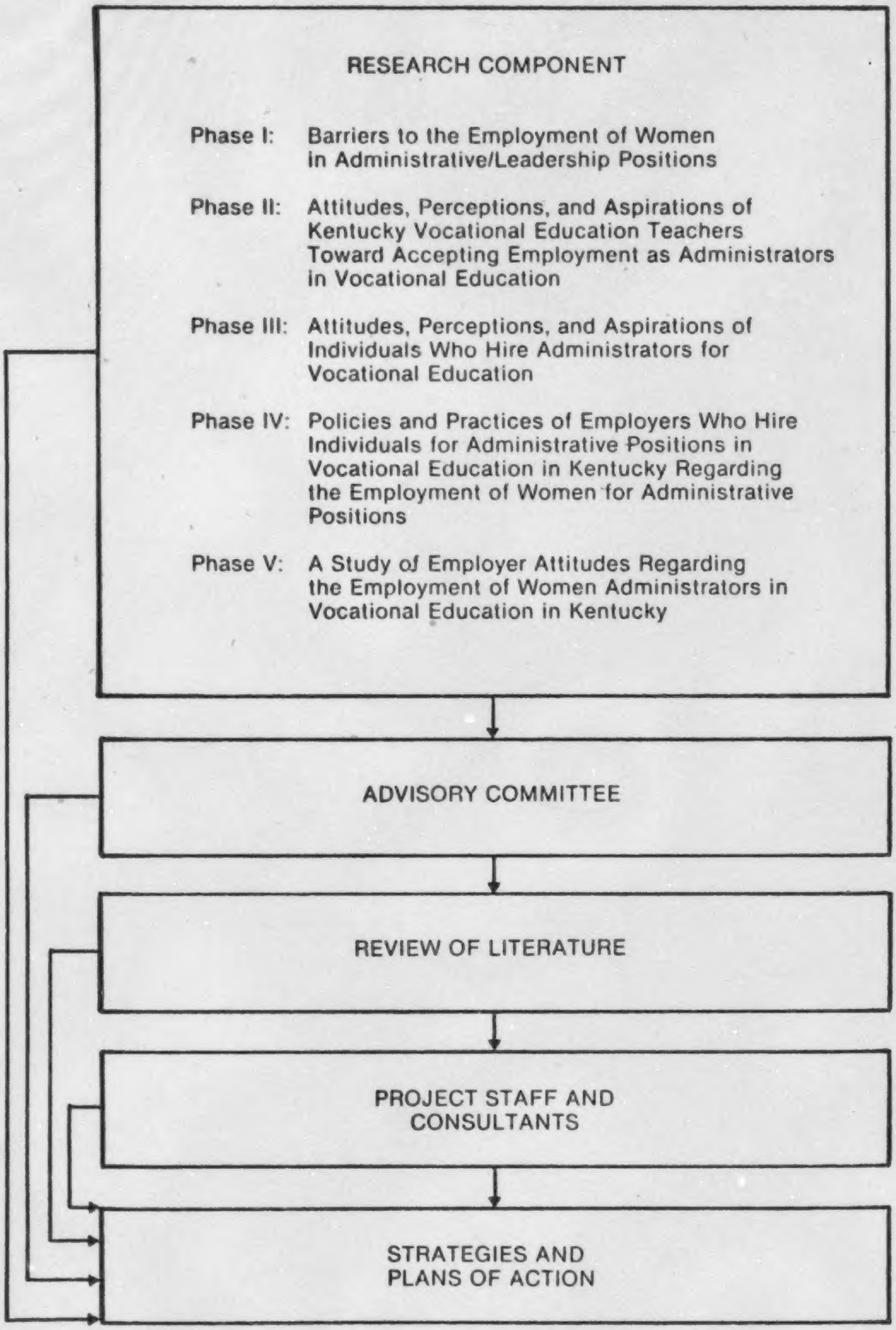
RESEARCH COMPONENT
Phase I: Barriers to the Employment of Women in Administrative/Leadership Positions
Phase II: Attitudes, Perceptions, and Aspirations of Kentucky Vocational Education Teachers Toward Accepting Employment as Administrators in Vocational Education
Phase III: Attitudes, Perceptions, and Aspirations of Individuals Who Hire Administrators for Vocational Education
Phase IV: Policies and Practices of Employers Who Hire Individuals for Administrative Positions in Vocational Education in Kentucky Regarding the Employment of Women for Administrative Positions
Phase V: A Study of Employer Attitudes Regarding the Employment of Women Administrators in Vocational Education in Kentucky
ADVISORY COMMITTEE
REVIEW OF LITERATURE
PROJECT STAFF AND CONSULTANTS
STRATEGIES AND PLANS OF ACTION

Figure 10. Aspects of the Synthesization Component.

committee, project staff, consultants, and literature regarding strategies for overcoming the imbalance of women in administrative/ leadership positions.

Procedures and findings associated with the research component were presented by the project staff to our ten-member advisory committee. The advisory committee reviewed this information and suggested a series of techniques which might be used in order to eliminate the imbalance of women in administrative/leadership positions in vocational education.

The suggestions from advisory committee members were reviewed by the project staff and consultants along with literature regarding the topic. Information from these inputs was utilized in order to develop the realistic strategies and plan of action to eliminate the imbalance of women in the administration of vocational education.

Successful implementation of this plan will depend largely on the commitment and leadership of individuals in leadership positions in vocational education. It will require the full utilization of the talents and expertise of a number of people. These people must work together in order to effectively change the many different individual and institutional attitudes. Simultaneous efforts in a number of areas are recommended.

STRATEGIES TO OVERCOME THE IMBALANCE

A number of steps must be taken in order to eliminate the imbalance of women in administrative positions in vocational education. Several strategies were designed as a basis for developing a plan of action. They are discussed herein.

The Strategies

Strategy 1. Individuals and groups concerned with the educational policy-making process should be made aware of the imbalance of women in administrative positions in vocational education, the need for change, the effects of this imbalance, and strategies for change.

Successful implementation of a plan will involve individuals who are concerned with policy-making at all levels. (See Figure 11.) Individuals who influence policy must be aware that a problem exists and that there is a need to solve the problem. They must communicate this need to the policymakers. Policymakers, in turn, must determine that there is a need to solve the problem and take steps to make policy which will enable changes to occur. Once policy has been established, it must be implemented. Policy implementors are assisted by their subordinates. In addition, individuals and groups who influence policy help to assure that it is implemented.

What techniques should be used in order to make individuals and groups concerned with the educational policy-making process aware of the imbalance of women in administrative positions in vocational education? First, they must be aware of the problem, see the need for change, and visualize how change could be achieved. Several strategies are included in the plan of action. They are:

1. developing and implementing a media plan regarding the problem and the need for change,
2. encouraging the sponsorship of a state-wide conference on human rights in education,

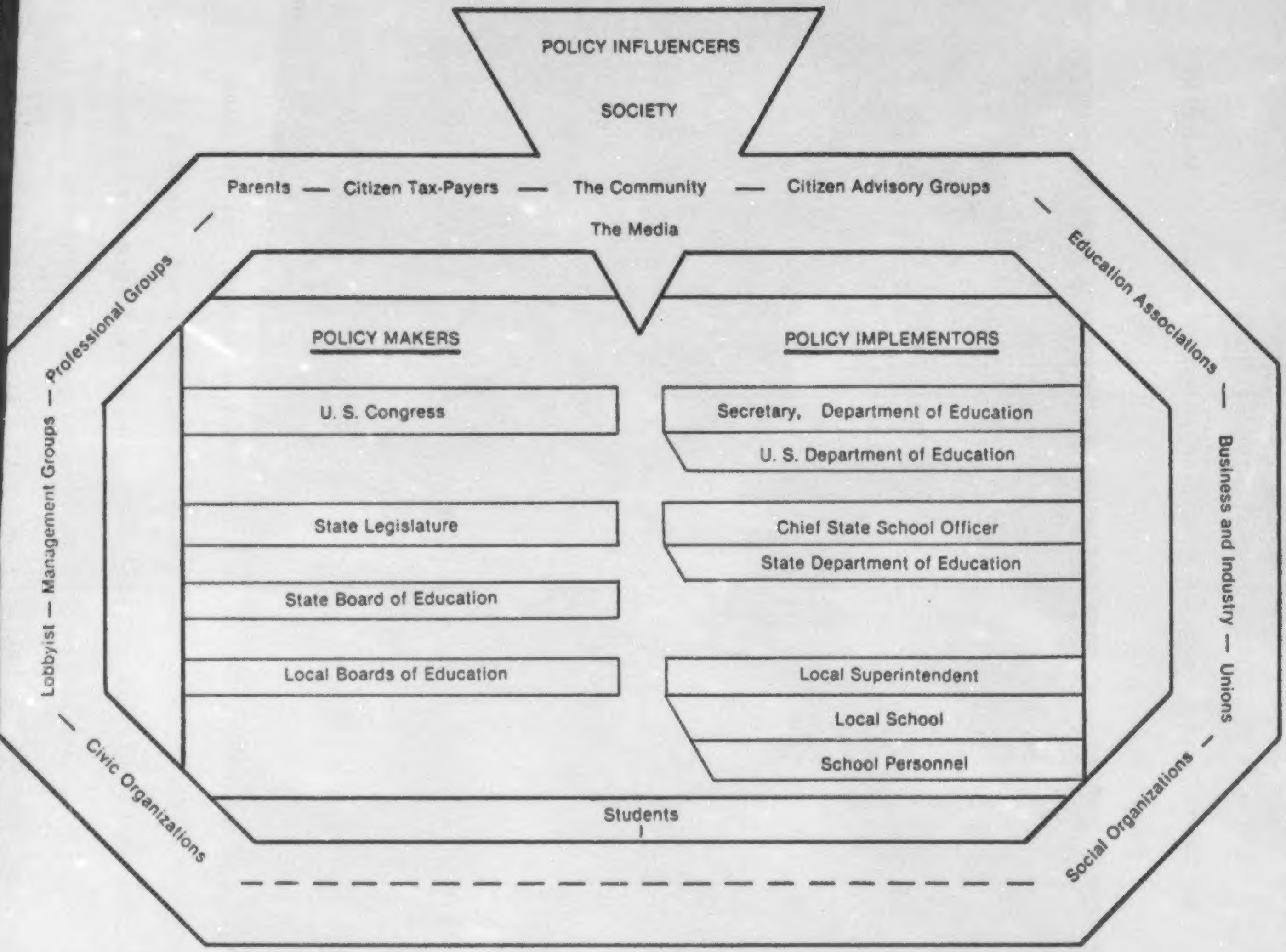
POLICY INFLUENCERS
SOCIETY
Parents — Citizen Tax-Payers — The Community — Citizen Advisory Groups
The Media
Education Associations — Business and Industry — Unions — Social Organizations
Professional Groups — Management Groups — Lobbyist — Civic Organizations
POLICY MAKERS
U. S. Congress
State Legislature
State Board of Education
Local Boards of Education
POLICY IMPLEMENTORS
Secretary, Department of Education
U. S. Department of Education
Chief State School Officer
State Department of Education
Local Superintendent
Local School
School Personnel
Students

Figure 11. The Policy Making Process

3. publishing professional materials regarding the problem, the need for change, and strategies for change
4. developing in-service education programs regarding the need for change.

Strategy 2. The development of consistent methods of enforcing policies regarding the employment of women in vocational education should be emphasized.

Many policies, including legislation, have been established to assist in overcoming the imbalance of women in administrative positions in vocational education. According to Shaeffer (1976), the primary need in reducing the occupational segregation of women is not for new policies or legislation, but rather for stronger and more consistent enforcement of existing policies.

This challenge will involve the development of strategies to ascertain that policy implementors are aware of existing policies with respect to the employment of women. Such strategies should include techniques to aid policymakers in seeing that procedures are designed to assure that existing policies are practiced. In addition, policy influencers must be made aware of existing policies and techniques for reporting violations of such. Once these elements are operating, mechanisms should be established to assure that (1) consistent methods are practiced and (2) policymakers are informed of any additional policies and procedures necessary in order to enhance the practice of providing equal employment opportunities for women in vocational education. Specific techniques are outlined in the plan of action.

Strategy 3. Improvements should be made in the techniques used to implement policy regarding the employment of women in vocational education at the following levels: State Department of Education, regional, state vocational schools, local school districts, community colleges, colleges, and universities.

This strategy will involve many efforts. However, it should lead to more efficient practices regarding the employment of women in administrative positions in vocational education.

A study of affirmative action plans plus techniques used to implement affirmative action, both in education and industry, should be conducted. Through this study, employers will be encouraged to share their experiences with respect to what does not work when it comes to reducing occupational discrimination against women. The study would be designed to identify effective techniques which might be used in educational institutions in Kentucky.

Technical assistance should be provided with regard to implementing positive affirmative action plans and techniques for recruitment, selection, training, promotion, and improving the status of women in vocational education. This process must have the support of top administrators in the organization. As Boyle (1973) states, "top management participation is essential to the success of any affirmative action program" (p. 8).

If we are to successfully match individuals for administrative/leadership positions in vocational education, we must identify the competencies, strategies, techniques, certification requirements, and other qualifications which are necessary in order to perform each administrative/leadership job in vocational education in Kentucky.

Jobs at all levels should be included. This information needs to be published in a job fact notebook: JOB BRIEFS AND QUALIFICATIONS FOR VOCATIONAL EDUCATION ADMINISTRATION. In addition to information regarding specific jobs and qualifications, this notebook should contain information regarding employment at the various levels and in particular organizations. Job locations should also be described. JOB BRIEFS AND QUALIFICATIONS FOR VOCATIONAL EDUCATION ADMINISTRATION should be available to all vocational educators. The material contained in it should be public knowledge.

In-service education efforts should be directed toward making individuals in vocational education in Kentucky aware that such a notebook exists. In-service education should also make individuals aware of the various occupations in the notebook and the procedures for applying for these positions. In-service education might also include information regarding career planning for professionals, certification requirements, professional materials needed to move ahead, interviewing, job development, and other topics of assistance for individuals concerned with career advancement. These goals could be accomplished through a series of professional development workshops and/or a vocational teachers' conference on career advancement in vocational education.

In addition, internship and management development programs should be established to let individuals know what is expected of them in the administration of vocational education. Internships provide individuals with an opportunity to obtain supervised practical experiences which enable them to experience first-hand administrative responsibilities and realities. Management development programs might include communications workshops, conflict management sessions, simulated and"in-basket"decision-making exercises and other techniques. Such programs would enable individuals to assess their administrative ability and should include the kind of constructive but critical evaluation needed for improvement.

Model training programs should be studied in order to identify effective job development strategies, techniques and programs. Kanter (1976) identified three major research models which have been utilized in implementing affirmative action programs and providing opportunities for women. These are the temperamental, role related, and social structural models. Each model has different implications for the level of intervention, assumptons about women, scope of change, and the effectiveness of change. The models also differ in terms of their backlash effect--the amount of ammunition that they present to the opponents of change in the position of women. According to Kanter, the social structural model has the most promise for effecting long-term social change. When implementing opportunities for women in vocational education, these models and their implications need to be considered. Some result in better training programs than others and communicate by practice rather than rhetoric that women are supported. (See Table 74 for a description of Kanter's research models.)

A systematic staff development program can help ensure that policies, practices, and programs are nondiscriminatory in nature. Such a program can also make women promotable. Organizations must provide job development and support for women once they are in leadership positions. This can be done with the assistance of role models and mentors. Role models and mentors encourage, support, and train

TABLE 74

AN OVERVIEW OF KANTER'S (1976) RESEARCH MODELS

Comparison Factor(s):	The Models		
	Temperamental Model	Role Related Model	Social Structural Model
Description	Stresses women's character and personality in regard to socialization and sex roles.	Focuses on the division of labor between men and women as the key to women's position and the foundation of occupational segregation.	Directed at the nature of organizational structures because organizations don't exist in a vacuum.
Examples	1. Assertiveness Training 2. Management Assessment Programs 3. Career Planning for Women	1. Programs to help individuals perceive their roles differently: a. For women: managing roles and preparing for resulting conflicts b. For men: consciousness raising, encouraging them to take a larger share in family responsibilities 2. Structural solutions such as child care and part-time work are suggested.	1. Flex-time 2. Study: job relationships 3. Study: how individuals are introduced to the organization.
Assumptions Regarding Women	Unintentionally supports an image of women as deficient.	Supports women as overcommitted or torn between obligations.	Supports the role of women in the organization.

Comparison Factor(s):	The Models		
	Temperamental Model	Role Related Model	Social Structural Model
Scope of Change	Unintentionally supports resistance to change.	Unintentionally supports resistance to change	Supports change in the organization
Intervention	1. Implies the need for remedial programs for women. 2. An opposing view within the model holds the view that women are different. However, these differences make women superior to men and not inferior. The suggested intervention is to get more women in power positions with the assumption that women will handle power in a more benign, equalitarian, humane fashion. The view has little empirical evidence to back its claims and promotes stereotypes--even though the images are positive and not negative.	Oriented toward individual role conceptions.	Structural and situational variables are important determinants of the organizational behavior of individuals.
Advantages	1. Has positive effects on management skills and self assertion.	Individuals may come to view themselves and others differently thru	1. Opportunity structure, international labor markets, dominance

Comparison Factor(s)	The Models		
	Temperamental Model	Role Related Model	Social Structural Model
	2. Provide support and an ego boost for women who attend.	the examination of sex roles and attitudes.	structures, and sex ratios are examined across hierarchical levels. 2. Influences the likelihood that women on the job will have high motivation, be able to demonstrate competence and confidence, will be seen as promotable, will be productive, and will be effective in leadership roles.
Disadvantages	1. Increasing the number of "properly socialized and motivated" women does not affect the structure of the organizational world. 2. Causes stereotyping and exaggerates differences. 3. Some women resent being "singled-out" for the programs. 4. Because women who are succeeding in higher-status occupations are in a special group anyway, it is likely that many of the generalizations about	1. This is a conservative approach. The traditional nuclear family is assumed and other alternatives are not usually explored. 2. Employers may be handed a set of stereotypes that permit conventional excuses for occupational segregation. 3. Focuses too much attention on the family but not enough on the work place.	Has not received widespread attention or policy interest.

Comparison Factor(s):	The Models		
	Temperamental Model	Role Related Model	Social Structural Model
	women's character do not apply to them. 5. Reinforces traditional attitudes that men set the standards for occupational success and that women are deficient, requiring remedial and compensatory attention.		

women in administration through an on-the-job type of management training.

The tasks of recruitment and selection cannot be taken lightly if appropriate representation of women in vocational education administration is to be realized. Several specific actions have produced positive results in other organizations. They include active recruiting, informing professional associations which include women of personnel vacancies, including women on selection and interview teams, training interviewers to get the most out of an interview, and making attempts to contact qualified women early.

A talent bank or pool of qualified applicants should be established. It might be operated through the vocational association. The talent bank should be computerized and updated at regular intervals so that up-to-date information is constantly available regarding individuals who are qualified for administration. The talent bank should be developed and used to encourage the hiring of individuals according to competencies possessed rather than in terms of traditional experience and training. For example, a position announcement for an academic vice president specifying experience as a dean will limit the number of women applicants. However, a number of women may possess the competencies necessary for success in this position--especially women who have chaired large departments within organizations or served as administrators in business and industry.

A job-locating network should be established. The purpose of this network would be to make sure that all individuals know about job openings when they become available. Information regarding openings should be published and distributed throughout the system and to individuals in the talent bank. In addition, publicity regarding openings should be addressed to as large an audience as possible.

Administrators should review Questions Regarding the Employment of Women in Administrative Positions in Vocational Education (pages 318-319). They need to consider the implications that these questions have for improving the status of women in their own organizations.

These and other techniques outlined in the plan should create an atmosphere in which qualified women are given an opportunity to go as far as they are capable of and want to go. These techniques would also help women ascertain whether they are treated in a manner comparable to their peers in regard to salary, title, and job classification.

Strategy 4. Educational programs which support equity for women--and thus encourage women to aspire to administration in vocational education and other leadership positions--must be developed.

If we are to eliminate the imbalance of women in administrative positions in vocational education, efforts must be directed toward improving the status of women who are currently in vocational education. This includes students, teachers, and administrators. However, other populations must not be neglected. Women should be encouraged to aspire to leadership positions before the time that they enter vocational education programs. According to Verheyden-Hilliard (1975), women must begin to be administrators as early as kindergarten.

The first step in change is an awareness of the conscious and unconscious programming that shapes individuals and organizations. School personnel must be willing to initiate change in themselves and

QUESTIONS REGARDING THE EMPLOYMENT OF WOMEN IN ADMINISTRATIVE POSITIONS IN VOCATIONAL EDUCATION

Recruitment

1. Do recruiting brochures and advertisements carry pictures of women as well as men?
2. Who makes recruiting visits?
3. How are openings in your organization advertised?
4. Are any of the following sources utilized in recruiting?

   -University Council of Educational Administrator's Computerized Research and Placement System (CORPS)
   -American Association of School Administrators' Sex Equality in Education Aministration Program
   -National Council of Administrative Women in Education
   -Delta Kappa Gamma
   -American Association of University Women

Selection

1. How are the selections made?
2. Who determines the criteria for selections?
3. Are women included in the decision-making process related to selecting administrators?
4. During job interviews, are men and women asked different types of questions? Do the questions asked women center around caring for children, family plans, husbands perceptions of working or other items?
5. What attitudes exist within your organization regarding women as workers? How do these attitudes influence the selection of women?
6. Are the individuals who participate in the selection process aware of discriminatory practices in employment selection?
7. Who makes final decisions regarding hiring administrators for vocational education?

Training

1. Are women involved in informal development assignments that often lead to administration?
2. Are administrative internships, job enrichment, and career ladder programs available?

3. What training or upgrading activities are open to women? Are they the same programs as those offered men?

4. Are women encouraged to participate in staff exchange programs?

5. Are women given choices about their careers rather than having choices made for them? For example, "Of course you won't be interested in this new job; it will involve a transfer to another city" instead of "Are you interested in a new job which would involve a transfer to another city?"

6. What means are open to women to find out about general company activities?

7. Are salary levels for women comparable to those for men in similar positions?

8. Who provides training? Are the needs of women considered?

Promoting

1. How are promotions made?

2. How do people find out about promotions?

3. How are women treated who get promotions into management?

4. What do people say about any high-level successful women in the organization?

5. Does your organization have a "men only" club?

6. Is business conducted in places usually frequented by men only?

7. Does your organization promote from within?

8. Does your organization provide support to women once they become administrators?

Improving the Status of Women in the Organization

1. What additional affirmative steps have been taken beyond minimum requirements? (Factors such as establishing child care centers for children of the staff; flex-time working hours and/or job sharing.)

the organization. The retraining of all school personnel should be an immediate concern. However, preservice education must also be considered. According to Reha and Nappi (1975), degree programs should educate administrators, teachers, and counselors to make the elimination of sex stereotyping and the encouragement of free occupational choice a high priority since stereotyping affects all students.

Administrators have great potential for impact on personnel, program practices, and procedures. According to Allen, et.al. (1976), administrators should participate in the in-service programs which they develop for others. This indicates to staff that the administrators take the content of the in-service education programs seriously. As Simpson (1974) indicates, administrators are in a strategic position to require training for others and to provide support for change through affirmative action. They are in an excellent position to evaluate training programs. They are also able to encourage staff and to participate in implementation of efforts.

> Administrators must facilitate better guidance and counseling practices in the educational institution by a personal commitment to equal opportunity for women in education and the work force. They must also encourage counselors and teachers through formal programming for in-service development as well as an informal emphasis on the importance of active solutions to the problems of equal opportunity for women. Harmon (1979, 13)

Counselors need to develop an understanding of sex equity and to become aware of their personnel commitment to this issue. Positive steps would include the following techniques:

1. Inform them of the facts of women's employment.
2. Confront their own biases in formal training experiences and informal discussions.
3. Challenge the developers of counseling, career information, and testing materials to eliminate sex stereotyping in their products.

4. Assess the developmental status of their women clients and work on basic problems of self-definition and motivation before providing career materials, testing, and career education experiences.
5. Encourage females, especially those at the junior high level, to enter basic courses in mathematics and science and to keep their options open when they are ready to make choices.
6. Develop and implement support groups for women facing common problems.
7. Develop and implement programs to develop specific personal skills which are useful in the work force, such as assertiveness training, decision-making strategies, and time management techniques.
8. Develop effective ways to initiate recognition of real barriers in home, educational process, and the work place without discouraging the career exploration of women clients. Harmon (1979, 12)

Teachers should develop an awareness of the impact of their attitudes on their students. They should also be aware that in many cases they serve as role models for students. According to Kimmel (1974) and Simpson (1974), teachers must realize the impact of their own personal values, attitudes, and behavior upon students. According to Harmon (1979), recommendations one, two, six, and eight for counselors also apply to teachers. In addition, teachers should

1. Be aware that women students may need special help in areas involving mathematics, spatial skills, or the application of physical force.
2. Be aware that many women students in vocational education programs lack confidence in their skills and ability to control their lives. Reinforcement may increase their sense of control over their lives and careers by increasing the control of their own learning process.
3. Encourage both sexes within a classroom to explore the perceptions and work styles of the other by encouraging classroom cooperation between the sexes rather than competition.
4. Challenge the developers of curricular materials which give the impression that vocational roles for women are limited because of sex. Harmon (1979, 12)

Steinmann (1970) discovered that a scarcity exists regarding the preparation of women for work roles. She found that some girls are unable to plan a future in the world of work. Their ideas of marriage and work seem to be drawn from their parents. School personnel need to help students fill the gaps between ideas of self, attitudes of parents, and the real world.

The elimination of sex discrimination in career preparation should be a major goal for career education programs. Equal vocational education and adequate guidance and counseling programs must be developed as aspects of these programs. Career education should (1) address the problems of sex-stereotyped occupations and (2) dispel myths regarding women and work.

If sex stereotyping is to be overcome at the classroom level, teachers must be involved in program planning, curriculum development, curriculum revision, recruitment in non-traditional courses and all other aspects of the school efforts. Lasting impact of preservice and in-service programs will be directly proportional to the involvement of the individuals involved.

These and other techniques included in the plan of action should increase the number of women who will aspire to leadership positions. Teachers will very greatly influence the aspirations of women. In many instances, the very best teachers are promoted to administrative positions. Teachers often find it necessary to accept administrative positions due to the economic rewards associated with these positions. Therefore, it is recommended that a master level teacher position be established with adequate financial rewards for excellence in teaching. This should encourage excellent teachers to stay in the classroom and to provide equal pay for work of equal value.

Strategy 5. Research regarding the status of women should be continued.

Research efforts need to include representative samples of males as comparison groups. A variety of issues should be examined in order to overcome the imbalance of women in administrative positions in vocational education. In addition, relevant statistical data should be kept regarding the status of women in vocational education both as students and employees.

Implementing the Strategies

Strategies designed to overcome the imbalance of women in administrative positions in vocational education have been presented. The remainder of the report focuses on the plan of action which was developed in order to implement these strategies.

THE PLAN OF ACTION

The following pattern was utilized in order to develop the plan of action. The goal is stated followed by objectives to be accomplished and techniques to be used in attaining these objectives. These techniques should assist in eliminating the imbalance of women in the administration of vocational education in Kentucky. They should also help to create responsible personnel management.

GOAL: To eliminate the imbalance of women in administrative positions in vocational education

OBJECTIVE(S):

A. To make individuals and groups concerned with the educational policy-making process aware of the situation, the need for change, and strategies for change.

TECHNIQUE(S):

A.1. Develop and implement a media plan regarding the situation and the need for change. Publicize information regarding the status of women in vocational education in Kentucky, the impact of this imbalance, and strategies for change.

A.2. Encourage the government and/or private funding agencies to sponsor a statewide conference on human rights in education. Materials developed through the Born Free Institute (1978) should be used along with other information in order to reach the following goals:

a. Place special emphasis on the responsibility for maximizing human resources in education by supporting equality.
b. Serve as a catalyst in causing policy makers to focus attention on the responsibility of preparing women for leadership in vocational education.
c. Make individuals aware of the myths regarding the employment of women and the reality of the situation.
d. Make individuals aware of other barriers to the employment of women and steps to overcome these barriers.

	A.3. Publish professional materials regarding the barriers to the employment of women in vocational education administration, the consequences of these barriers, and steps to overcome the barriers.
	A.4. Develop in-service education programs at State Department, regional, state vocational school, local school district, college and university, and community college levels regarding the results of the research project pertaining to techniques necessary for change.
B. To develop consistent methods of enforcing policies regarding the employment of women in vocational education.	B.1. Present in-service education programs to policy implementors for vocational education at State Department, regional, state vocational schools, local school districts, colleges and universities, and community colleges regarding: a. Existing policies with respect to the employment of women. b. Techniques for implmenting existing policies. c. Techniques to assure that existing policies are being implemented. d. Barriers to the employment of women. e. Myths regarding the employment of women.
	B.2. Develop and implement a plan to make individuals who influence policy aware of existing policies with respect to the employment of women in vocational education and procedures for making complaints when these procedures are not followed.

C. To improve the techniques used to implement policy regarding the employment of women in vocational education at the following levels: State Department, regional, state vocational schools, local school districts, colleges and universities, and community colleges.

C.1. Study affirmative action plans plus techniques used to implement affirmative action both in education and industry in order to identify effective techniques which might be used in educational institutions in Kentucky.

C.2. Provide technical assistance to policy implementors with regard to developing affirmative action plans and/or reviewing current plans to insure that they are providing opportunities for women.

C.3. Provide technical assistance to policy implementors with regard to:

a. Studies of recruitment, selection, training, promotion, and the status of women in the organization.

b. Implementing techniques for improving recruitment, selection, training, promotion, and the status of women in the organization.

c. Implementing techniques to make individuals within the organization aware of the methods used to recruit, select, train, promote, and improve the status of women and others within the organization.

C.4. Develop a job fact notebook: JOB BRIEFS AND QUALIFICATIONS FOR VOCATIONAL EDUCATION ADMINISTRATION.

C.5. Provide in-service education to make individuals aware of the job fact notebook and techniques for career advancement.

C.6. Study model training programs as a means of identifying effective job development strategies, techniques, and programs.

C.7. Establish a systematic staff development program to train individuals, especially women, for leadership positions.

C.8. Obtain access for women to administrative positions in vocational education and other opportunities for leadership.

C.9. Provide job development and support for women once they are in leadership positions.

C.10. Make competent women in leadership positions within each organization both visible and accessible as role models for other women.

C.11. Encourage mentoring by having each administrator serve in this capacity for at least one aspiring female.

C.12. Develop a talent pool of qualified applicants based on competencies possessed.

C.13. Establish a job-locating newtork to make sure that all individuals are aware of job openings when they become available.

C.14. Encourage administrators to review QUESTIONS REGARDING THE EMPLOYMENT OF WOMEN IN ADMINISTRATIVE POSITIONS IN VOCATIONAL EDUCATION and to consider how they might improve techniques used to implement policy regarding the employment of women.

C.15. Sponsor in-service education programs for administrators designed to discuss filtering methods and other attitudes which perpetuate discrimination against women and to review techniques for overcoming discrimination against women.

C.16. Each organization should:

a. Review policy and procedure manuals for sexist language and revise the manuals so they are not biased.

b. Make an analysis of current employment patterns based on sex, race, position, and salary. Such an analysis should include an investigation of possible discrepancies between males and females in terms of employment conditions such as length of service, actual job duties compared with job description, assignment of pay for extra duties, opportunities for overtime, opportunities for raises, and opportunities for bonuses.

c. Identify areas where women in vocational education are concentrated or underutilized and the extent of such.

d. Examine the duties of the affirmative action officers to see if they are overloaded with other work which prohibits them from doing the affirmative action work.

C.17. Attempts should be made to identify both affirmative action coordinators and individuals who make final decisions regarding the hiring of administrators for vocational education. Individual names should be made public information. Persons who hire administrators for vocational education positions should be held accountable for the imbalance of women in these positions.

D. To develop educational programs which support equity for women and thus encourage women to aspire to administration of positions in vocational education and other leadership positions.

D.1. Provide preservice and in-service education programs which encourage:

- a. Administrators to initiate change in themselves and the organization.
- b. Counselors to employ counseling techniques which include non-sexist approaches to career counseling.
- c. Teachers to develop an awareness of the impact of their attitudes on their students and their aspirations.

D.2. Provide educational programs which allow for career preparation through:

- a. Comprehensive career education.
- b. Sex-equity efforts in vocational education.
- c. Adequate guidance and counseling.

D.3. Involve teachers in program planning, revision of curriculum materials, development of recruitment activities, and other aspects of the school effort to promote sex equity.

D.4. Design university programs to focus on sex equity in vocational education.

D.5. Monitor university placement practices to assure that women are considered for administrative positions.

D.6. Increase the number of women in graduate and fellowship programs.

D.7. Develop a master teacher level position.

E. To continue research regarding the status of women.

E.1. Include representative samples of males as comparison groups in research regarding women.

E.2. Conduct research to provide answers to the following questions:

a. What factors increase the participation of women in the world of work?
b. What factors are successful in reducing occupational discrimination against women?
c. What occurs when women move into non-traditional jobs?
d. What are the effects of tokenism?
e. What results occur from orientation to the organization? How are individuals introduced to positions? Are there differences in the way they are introduced? What should be included when introducing persons to positions? What kind of training, support networks, and team building are available?
f. What is the nature of vocational education administration in Kentucky? What are persons required to do in administration? Is there a match between these requirements and the training program objective? Is there a match between what one is supposed to do and what is actually required? Is there a set of strategies for moving into administration and another set for being successful once there?

E.3. Continue investigative research to examine the status of women in the organization.

E.4. Studies should be conducted to examine:

a. Attitudes of professional personnel in vocational education, to determine if stereotyped attitudes of colleagues hinder career aspirations or advancement opportunities of women.
b. The number of women who are applying for administrative positions in vocational education, the nature of the positions for which they are applying, and the results of such applications.
c. The effects of shared administrative positions and "flex time" on administrative positions.
d. Differences in the characteristics which make men and women successful in administration, if any.
e. Other topics which may provide additional knowledge and help increase the number of women in administration.

E.5. Publish state level statistics at least annually on the relative status of women in education, both as students and employees.

SUMMARY

The research component of this project focused on the reasons for an imbalance of women in administrative positions in vocational education in Kentucky. Information obtained from the research component was utilized along with other inputs in order to identify strategies designed to eliminate this imbalance. Strategies include:

1. Individuals and groups concerned with the educational policy-making process should be made aware of the imbalance of women in administrative positions in vocational education, the need for change, the effects of this imbalance, and strategies for change.
2. The development of consistent methods ~~of~~ enforcing policies regarding the employment of women in vocational education should be emphasized.
3. Improvements should be made in the techniques used to implement policy regarding the employment of women in vocational education at the following levels: State Department of Education, regional, state vocational schools, local school districts, community colleges, and colleges and universities.
4. Educational programs which support equity for women and thus encourage women to aspire to administration in vocational education and other leadership positions must be developed.
5. Research regarding the status of women should be continued.

A plan of action was designed in order to implement these strategies.

The following pattern was utilized in developing the plan of action. The goal was stated, followed by objectives to be accomplished and techniques to be used in attaining these objectives. The techniques should assist in eliminating the imbalance of women in the administration of vocational education in Kentucky. They should also help to create responsible personnel management.

THE EVALUATION COMPONENT

By: Floyd L. McKinney
Mary L. Ellis

INTRODUCTION

EVALUATION OF THE RESEARCH COMPONENT

- Validity of Research Findings
- Reliability of Research Findings
- Congruency of Research Effort With Original Plan
- Additional Comments

EVALUATION OF THE SYNTHESIZATION COMPONENT

- Evaluation Questions and Answers
- Additional Comment

SUMMARY

INTRODUCTION

Evaluation of the project was conducted in two stages corresponding to the Research and the Synthesization Components. There were two reasons for separate evaluations. In the first place, evaluation of the Research Component was necessary in order to effectively develop the Synthesization Component. Secondly, competencies required for evaluating one component differ from those required for evaluating the other. In order to promote objectivity, evaluations were carried out by consultants from outside the University of Kentucky system. Reports are incorporated herein.

The evaluation of the Research Component was performed by a consultant with demonstrated expertise in the areas of attitude assessment and survey research. Basic questions were as follows: (1) How valid are the research findings? (2) How reliable? (3) Were the investigators able to execute the research in the proposed manner? (4) Where and why did they have to change the original plan?

Evaluation of the Synthesization Component was performed by a consultant with expertise in administration and sex equity. Questions included in the evaluation were as follows: (1) Have the barriers to equal opportunity for women in the administration of vocational education programs been identified? (2) Do the strategies suggested for overcoming sex bias relate meaningfully to the barriers identified? (3) What possible aspects of sex bias have been overlooked in this project? (4) What suggestions can be made to further the implementation of the proposed plan?

EVALUATION OF THE RESEARCH COMPONENT

Floyd L. McKinney*

The research component of the project consisted of five distinct phases. Each phase was designed to address a specific question. The phases and specific questions were:

Phase I: What is the body of knowledge regarding the internal and external barriers to the employment of women in administrative positions in vocational education?

Phase II: What are the attitudes, perceptions, and aspirations of Kentucky vocational education teachers toward accepting employment as administrators in vocational education?

Phase III: What are the attitudes, perceptions, and aspirations of individuals who hire administrators for vocational education?

Phase IV: What are the policies and practices of employers who hire individuals for administrative positions in vocational education in Kentucky regarding the employment of women for administrative positions?

Phase V: Do employers express biased attitudes toward women in regard to educational background? Employment experiences? Professional activities? Written recommendations? Leadership potential? Interpersonal skills? Career commitment?

The evaluator's assessment of the Research Component is based upon a reading of the project proposal and the research report. An opportunity was provided for the evaluator to interact with the project staff. However, the evaluator had not been provided a copy of of the research report prior to the time of the opportunity for interaction with the project staff.

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A general impression of the evaluator is that the project addressed an area critical to the vitality of vocational education in Kentucky. The questions addressed in each of the research phases need to be considered by vocational educators at all levels if vocational education is to be viewed with anything less than skepticism by its significant audiences. The findings of this research effort should be especially helpful to vocational educators with management responsibilities and to those responsible for initiating those processes that ultimately result in significant change in vocational education.

The evaluation of this component will be addressed in the following sections: validity of research findings, reliability of research findings, congruency of research effort with original plan, and additional comments.

Validity of Research Findings

Did the project staff measure what it thought it was measuring?

Phase II and III of the research effort uses as a portion of the instrumentation The Texas Social Behavior Inventory (TSBI). As a measure of self-esteem and social competence the TSBI seems to have a high degree of construct validity. Some doubt may linger as to its validity with the specific populations of this study; however, the TSBI is significantly correlated with several recognized instruments.

The Bem Sex-Role Inventory (BSRI) was also utilized in Phases II and III. College students were used as subjects in the development of the BSRI. The data that these students provided represent the normative data available for the BSRI. The BSRI does not correlate highly with other typical masculinity-femininity scales; however, one must be aware that most of the other scales may be measuring other aspects of sex roles.

The project staff piloted a significant portion of the staff-developed instrument. No statistical measures of validity are available on this portion of the instrument. The instrument is anchored in an extensive review of the relevant literature and was extensively reviewed by the project staff and consultants.

In Phase IV, a structured interview was used. The instrumentation and procedures were well developed. The training provided interviewers was excellent. One must continue to question whether the structured interview situation biases the responses. Would an open-ended elite-type of interviewing situation have provided interviewee responses more representative of the interviewees own beliefs.

Validation of the instrument in Phase V was by a panel of judges. Given the resources available for the study, this method of validation is probably all that could be expected.

Reliability of Research Findings

Reliability is the concern for stability, accuracy, and precision of measures.

As noted earlier the TSBI was used in Phases II and III of the study. This instrument appears to be a highly reliable instrument for the assessment of self-perceptions of social competence or self esteem.

The BSRI used in Phases II and III of the study has a high test-retest reliability.

No statistical reliability information is available for the staff instrument. This portion of the instrument was developed with assistance from individuals intimately familiar with practices pertaining to the employment of administrators in Kentucky. A pilot of the interview schedule and instrument enhanced the credibility of this phase of the study.

The test-retest method was used to determine the reliability of the instrument used in Phase V. The instrument appears to have been sufficiently reliable.

Congruency of Research Effort With Original Plan

The study undertaken addressed a very complex area. It appears that the staff made effective and efficient use of resources in attaining the original project objectives.

Additional Comments

The review of literature directly and indirectly related to the focus of this study was critical. One must always ask whether or not the research has selected the "right" variables. It appears from the rather extensive review of the literature that the appropriate variables were selected.

With limited resources researchers seldom have the capability (money or time) to perform adequate tests for validity or reliability. This study has been no exception to those norms. However, the project staff is to be commended for its tenacity and professionalism in its research approach to a serious problem confronting vocational education.

EVALUATION OF THE SYNTHESIZATION COMPONENT

Mary L. Ellis*

The Synthesization Component contains five strategies designed to eliminate the imbalance of women in administrative positions in vocational education. It also includes a plan of action for implementing these strategies.

The evaluation of this component is presented in the following manner. Each question is specified,followed by the evaluator's response which contains recommendations for the project director and staff. Additional comments and suggestions are also presented.

Have the barriers to equal opportunity for women in the administration of vocational education programs been identified?

Early parts of the study carefully and thoroughly identify barriers to women in the administration of vocational education programs. However, since the Synthesization Component may be the only component of the study read by some persons, I suggest that you highlight barriers in this component. The pervasiveness of socialization and outmoded traditions should particularly receive attention in your highlights. I agree that legislative and regulatory provisions for overcoming sex bias and stereotyping are adequate. Emphasis is needed on implementing policies that exist and on overcoming long-held attitudes about women in education and the labor force.

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*President, Ellis Associates, Inc., College Park, Maryland.

Do the strategies suggested for overcoming sex bias relate meaningfully to the identified barriers?

Strategies identified for overcoming sex bias do relate meaningfully to the identified barriers. Because each of the strategies identified include a host of ideas for implementation, I suggest that you and your associates consider a more detailed breakdown of strategies using major headings and subheadings. Any one of the substrategies identified in the categories you have included deserves attention. You may wish to break the strategies down even further beginning with what should be done first and so on in order to build on previous steps.

What possible aspects of sex bias have been overlooked in the project?

On the whole, you and your associates have covered the waterfront with respect to possible aspects of sex bias. One possible area which may have been overlooked is the socialization of women and the penchant for some women to choose only those areas that have been traditionally filled by women. This is a difficult area to treat, since all persons should have freedom of choice. The question is, "Do women (or men) have freedom of choice when socialized from birth to think of 'women's work' or 'men's work'?" Perhaps this question is another area which bears further research.

What suggestions can be made to further the implementation of the proposed plan?

With respect to the proposed plan, I would suggest consideration of the following:

a. Attach time lines to each objective included in the plan.

b. Determine exactly which audience should be contacted and in what order.

c. Request through the Division of Vocational and Technical Education that the State Board for Vocational Education adopt the plan.

d. Determine which group will implement what parts of the plan--and divide and conquer!

e. Focus first on policymakers and decision makers in implementing your plan, and then focus on teachers, counselors, etc.

Additional Comments

The following general observations are offered for consideration and not as a criticism of the materials. In dealing with this complex and highly sensitive subject, objective and careful work is needed if barriers to women in administrative positions in vocational education are to be overcome.

1. Because of the timeliness and excellence of the study, consider the publication of a monograph which highlights findings of the study.
2. Because so many people find it difficult to translate findings into implications for programs, consider further development in the area of implications for vocational education.
3. Because the study includes an ambitious plan of action for overcoming sex stereotyping and bias with respect to women in administrative positions in vocational education, consider implementing the plan in a coordinated and comprehensive fashion allowing each step to build on previous steps.
4. Because some persons who prepare for vocational education may never enter vocational education, but may chose to enter business and industry, you may wish to explore further options and opportunities in that segment of the labor force.
5. Since the composition of the labor force is changing, further exploration is needed to determine implications

> for vocational education, including opportunities for women in administrative positions.

The project staff is to be complimented on an excellent piece of work. Your study has great implications for all of us in vocational education.

SUMMARY

Evaluation of the project was conducted in two stages corresponding to the Research and the Synthesization Components. Results of the evaluations are presented in this section.

The Research Component was evaluated by Floyd L. McKinney, Program Director for Evaluation Studies and Senior Research Specialist. The National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio. Basic questions included: (1) How valid are the research findings? (2) How reliable? (3) Were the investigators able to execute the research in the proposed manner? (4) Where and why did they have to change the original plan?

Evaluation of the Synthesization Component was performed by Mary L. Ellis, President, Ellis Associates, Inc., College Park, Maryland. Questions included in the evaluation were as follows: (1) Have the barriers to equal opportunity for women in the administration of vocational education programs been identified? (2) Do the strategies suggested for overcoming sex bias relate meaningfully to the identified barriers? (3) What possible aspects of sex bias have been overlooked in this project? (4) What suggestions can be made to further the implementation of the proposed plan?

In addition to answering these basic questions, the evaluators provided additional comments regarding each component of the project. Such comments provided additional evaluation information. These comments should also be helpful when implementing a plan of action to overcome the imbalance of women in administrative positions in vocational education.

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APPENDICES

APPENDICES

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APPENDIX A

PILOT INTERVIEW SCHEDULE

PHASE I

Hello, my name is ____________________, from the University of Kentucky. You have been selected to participate in a federal research project designed to study employment patterns in vocational education. Do you have time to answer some questions?

1. We recently mailed a package of materials to you. Have you received the package?
2. We might start with a general question: What was your overall reaction to the material?
3. Were there any parts of the material that you especially liked?
4. Were there any parts of the material that you especially disliked?
5. What did you think of the letters that came with the material?
    a. Did they explain satisfactorily what was requested in the packet?
    b. Were they clearly stated?
6. The questionnaire had a number of sections. I'd like to mention several and get your reactions:
    a. There was a section containing things like residence and marital status. What did you think of this section?
    b. There was a section dealing with the responsibilities that an administrator performs and the time allocated to these responsibilities. What did you think of that section?
    c. What did you think about the section which requested your attitudes regarding your current position?
    d. Were you able to explain your job aspirations using the questions provided?
    e. In one section you were asked to check from a list administrative positions you had applied for. Do you have any comments about this section? Were there any positions you feel should have been omitted or included?
    f. In another section you were asked to answer questions about your personality and beliefs. What did you think of this section?
7. How would you describe the purposes of the study?

8. Do you think we left anything out of the questionnaire?

9. Do you have any additional comments?

Thank you for your time.

APPENDIX B

INSTRUMENT PACKET

PHASE II

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

Dear Vocational Educator:

You have been selected to participate in the federally funded research project designed to study employment patterns in vocational education. Your involvement will require approximately twenty minutes of your time and will help assure that all areas of vocational education are adequately represented.

Our project staff has compiled the enclosed package of materials designated to obtain information regarding your background, attitudes, perceptions, and aspirations. We are requesting your assistance as follows:

1. Select a quiet location where you will be able to complete the package.
2. Without obtaining the assistance of other individuals, complete each section as directed. There are no incorrect answers.
3. Return by November 30, 1978 in the enclosed envelope,which requires no postage.

In the upper right-hand corner of the package, you will notice an identifying number. This is placed on the package to facilitate the collection and analysis of data. Your responses will be handled in a confidential manner and will become anonymous in the analysis of data and report of the study. Please be advised that participants may withdraw and/or discontinue participation in the project at any time without prejudice against them.

If you have questions regarding the research, we will be happy to answer them. Address specific inquiries to the project director. A summary of the research findings will be available after June 15, 1979. Requests for such should be addressed to the project director.

Thank you for your contribution to our research. Your efforts will support the development of vocational programs.

Sincerely,

Carolyn Litchfield
Project Director

Have a cup of coffee on us while you complete your instrument!

CL/so

Enclosures

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

Dear Vocational Educator:

The U. S. Office of Education has awarded a federal research grant to the Department of Vocational Education to study employment patterns in vocational education. The results of this research effort will provide information important in program planning for vocational education. The study has implications for individuals concerned with vocational education from the classroom through top administration and into the total community.

Several members of the University faculty are involved in this research effort including Dr. Carl Lamar, Professor of Vocational Education; Dr. Ron Dillehay, Chairman of the Department of Psychology; and, Dr. Marjorie Stewart, Dean of the College of Home Economics. Dr. Carolyn Litchfield, Assistant Professor of Vocational Education, is serving as project director. In addition, Dr. Sue Couch and Ms. Pat Wilson have been serving as Research Associates.

Your assistance is needed in the conduct of this research effort. Enclosed you will find instructions from Dr. Litchfield regarding the manner in which you can contribute to this investigation.

Thanking you in advance for your cooperation.

Cordially,

Harold R. Binkley, Chairman
Department of Vocational Education

HRB/so

Enclosures

AN EQUAL OPPORTUNITY UNIVERSITY

SURVEY OF VOCATIONAL EDUCATION TEACHERS

INSTRUCTIONS: Provide the information requested by completing each section as directed.

Age (Check one)
_____1. 20-29
_____2. 30-39
_____3. 40-49
_____4. 50-60
_____5. Over 60

Sex (Check one)
_____1. Male
_____2. Female

Race (Check one)
_____1. Black
_____2. White
_____3. Other, specify: _____________

Residence
Specify the school district in which you live: ________ ________________________

Mobility (Check one)
_____1. Free to relocate
_____2. No desire to relocate
_____3. Unable to relocate; specify reason: _______________

Marital Status (Check one)
_____1. Single, never married
_____2. Married, live with spouse
_____3. Divorced
_____4. Separated
_____5. Widowed

Support of Spouse
To what extent has your spouse encouraged your participation in the following activities? (For each item, check the space corresponding to the most appropriate number) If you have no spouse, check the column marked N/A.

		None						Total
	N/A	0	1	2	3	4	5	6
a. Educational activities		_	_	_	_	_	_	_
b. Professional career		_	_	_	_	_	_	_

Dependent Children
Answer question "a" and proceed as directed:
a. Do you have any dependent children? (Check yes or no)
____Yes ____No
If yes, answer "b" and "c".
If no, move to the section marked "Highest Degree Held"
b. Specify the number of children in the following age groups:
____1. Less than 2 years
____2. 3-5 years
____3. 6-12 years
____4. 13-18 years
____5. Over 18 years
How many dependent children live with you?
(Check "none" or enter number)
____None or _____

Highest Degree Held (Check one)
_____1. Less than Bachelors Degree
_____2. Bachelors Degree
_____3. Masters Degree
_____4. Specialist
_____5. Doctorate
_____6. Other, specify: ________________

Additional Education or Training
(Specify the information requested)
a. Number of hours completed beyond the last degree: _____ None
_____semester hours _____quarter hours
b. Name any degree or other objective (such as Rank I) toward which you are currently working
____

Educational Preparation
Have you obtained any formal education and/or training in vocational education? (Check one)
____Yes, specify type of education or training
____
____
____No

Vocational Program Area
(Check the major vocational program area in which you are employed)
_____1. Agriculture
_____2. Business and Office
_____3. Marketing & Distribution
_____4. Health Occupations
_____5. Home Economics
_____6. Trades and Industry
_____7. Other Vocational Program Area, specify: ___________________
____
_____8. Non-vocational program area; specify: ___________________

Total Years Professional Experience in Vocational Education (Check one)
_____1. Less than 1 year
_____2. 1 to 5 years
_____3. 6-10 years
_____4. 11-15 years
_____5. 16-20 years
_____6. More than 20 years

Total Years Experience in Current Position
(Check one)
_____1. Less than 1 year
_____2. 1 to 5 years
_____3. 6 to 10 years
_____4. 11 to 15 years
_____5. 16 to 20 years
_____6. More than 20 years

Specify the School Situation In Which You Work
(Check one)
_____1. High School
_____2. Vocational School
_____3. Community College
_____4. College or University
_____5. Other (Specify) _______________

Attitude Regarding Current Position
(Answer "a" through "c")

a. How do you feel about the position you now have? (Check one)
____Like very much
____Like fairly well
____Dislike somewhat
____Dislike very much

b. How do you feel about the following aspects of your job? (Check one space for each item)

	Like Very Much 1	Like Fairly Well 2	Dislike Somewhat 3	Dislike Very Much 4
1. Salary or wages				
2. Work hours				
3. Working conditions				
4. Treatment by supervisor				
5. Opportunity to advance				
6. Relations with co-workers				
7. Health benefits				
8. The work itself				

Certification
(Provide the following information regarding your certification):

a. Type of teaching certificate held: ____________________

b. Date teaching certificate needs to be renewed: ____________________

c. Do you hold the certificate for administration, supervision and coordination of vocational education? (Check one)
_____ Yes
_____ No, but qualified if I apply
_____ No, but working toward it
_____ No, but plan to work toward it

d. Specify any other administrative certificate held: ____________________

Work Experience
Have you worked directly with any of the following administrators (principal, coordinator, director or other supervisor)?

	Yes	No
Male Administrator		
Female Administrator		

c. To what extent do you face the following problems as an employee? (Check one space for each item.)

	Very Serious Problem 1	Somewhat of a Problem 2	Occasionally a Problem 3	Rarely a Problem 4	No Problem 5	Not an Issue 6
1. Burden of the job combined with the family						
2. I lack the self-confidence to get ahead on my job						
3. Job is too difficult for me						
4. Job is physically tiring						
5. Need child care						
6. Children are too young for my peace of mind						
7. Would like more help at home						
8. Problems with teenage children						
9. Spouse doesn't want me to work						
10. Job doesn't pay enough						
11. Need full-time work						
12. Would like to quit work, but can't afford to						
13. Layoffs and unemployment						
14. Job doesn't really use my skills						
15. No chance to train for better job						
16. Lack job counseling						
17. Job is boring						
18. Transportation						
19. Discrimination because of sex						
20. No time to continue my education						
21. Sexual harassment on the job						
22. Would prefer part-time work						
23. Discrimination because of race						
24. No time for leisure						
25. Other, specify: ____________________						

BEM

A series of personality characteristics are listed below. Use these characteristics to describe yourself. Indicate on a scale from 1 to 7 how true of you these various characteristics are. Please do not leave any characteristic unmarked.

EXAMPLE: sly

Mark a "1" if it is NEVER OR ALMOST NEVER TRUE that you are sly.

Mark a "2" if it is USUALLY NOT TRUE that you are sly.

Mark a "3" if it is SOMETIMES BUT INFREQUENTLY TRUE that you are sly.

Mark a "4" if it is OCCASIONALLY TRUE that you are sly.

Mark a "5" if it is OFTEN TRUE that you are sly.

Mark a "6" if it is USUALLY TRUE that you are sly.

Mark a "7" if it is ALWAYS OR ALMOST ALWAYS TRUE that you are sly.

Thus, if you feel it is sometimes but infrequently true that you are "sly," never or almost never true that you are "malicious," always or almost always true that you are "irresponsible," and often true that you are "carefree," then you would rate these characteristics as follows:

Sly	3	Irresponsible	7
Malicious	1	Carefree	5

DESCRIBE YOURSELF

1	2	3	4	5	6	7
NEVER OR ALMOST NEVER TRUE	USUALLY NOT TRUE	SOMETIMES BUT INFREQUENTLY TRUE	OCCASIONALLY TRUE	OFTEN TRUE	USUALLY TRUE	ALWAYS OR ALMOST ALWAYS TRUE

Self reliant		Reliable		Warm	
Yielding		Analytical		Solemn	
Helpful		Sympathetic		Willing to take a stand	
Defends own beliefs		Jealous		Tender	
Cheerful		Has leadership abilities		Friendly	
Moody		Sensitive to the needs of others		Aggressive	
Independent		Truthful		Gullible	
Shy		Willing to take risks		Inefficient	
Conscientious		Understanding		Acts as a leader	
Athletic		Secretive		Childlike	
Affectionate		Makes decisions easily		Adaptable	
Theatrical		Compassionate		Individualistic	
Assertive		Sincere		Does not use harsh language	
Flatterable		Self-sufficient		Unsystematic	
Happy		Eager to soothe hurt feelings		Competitive	
Strong personality		Conceited		Loves children	
Loyal		Dominant		Tactful	
Unpredictable		Soft-spoken		Ambitious	
Forceful		Likable		Gentle	
Feminine		Masculine		Conventional	

TSBIA. The statements listed below refer to background and social behavior data. Using the scale a through e, indicate the degree to which these statements refer to you. Please do not leave any statement unmarked.

EXAMPLE: I would describe myself as socially unskilled.

Circle "a" if it is NOT AT ALL CHARACTERISTIC of you.

Circle "b" if it is NOT VERY characteristic of you.

Circle "c" if it is SLIGHTLY characteristic of you.

Circle "d" if it is FAIRLY characteristic of you.

Circle "e" if it is VERY MUCH characteristic of you.

Statements		Scale				
		Not at all characteristic of me	Not Very	Slightly	Fairly	Very Much characteristic of me
1.	I am not likely to speak to people until they speak to me.	a	b	c	d	e
2.	I would describe myself as self-confident.	a	b	c	d	e
3.	I feel confident of my appearance.	a	b	c	d	e
4.	I am a good mixer.	a	b	c	d	e
5.	When in a group of people, I have trouble thinking of the right things to say.	a	b	c	d	e
6.	When in a group of people, I usually do what the others want rather than make suggestions.	a	b	c	d	e
7.	When I am in disagreement with other people, my opinion usually prevails.	a	b	c	d	e
8.	I would describe myself as one who attempts to master situations.	a	b	c	d	e
9.	Other people look up to me.	a	b	c	d	e
10.	I enjoy social gatherings just to be with people.	a	b	c	d	e
11.	I make a point of looking other people in the eye.	a	b	c	d	e
12.	I cannot seem to get others to notice me.	a	b	c	d	e
13.	I would rather not have very much responsibility for other people.	a	b	c	d	e
14.	I feel comfortable being appproached by someone in a position of authority.	a	b	c	d	e
15.	I would describe myself as indecisive.	a	b	c	d	e
16.	I have no doubts about my social competence.	a	b	c	d	e

Aspirations

For each of the administrative positions in vocational education in Kentucky indicate the likelihood of your seeking one or more of them using the following scale:

1. I would never seek this position
2. It is very unlikely that I would seek this position
3. There is some possibility that I would seek this position
4. It is very likely that I would seek this position
5. I am certain to apply for this position
6. I have already applied for this position

Write the number from the scale in the space provided to the left of each administrative position.

A. STATE DEPARTMENT OF EDUCATION POSITIONS
   ___1. Deputy Superintendent for Occupational Education
   ___2. Assistant Superintendent Bureau for Vocational Education
   ___3. Assistant Bureau Officer
   ___4. Division Director
   ___5. Unit Director
   ___6. Unit Assistant Director
   ___7. Unit Supervisor
   ___8. Unit Coordinator

B. REGIONAL LEVEL POSITIONS
   ___1. Regional Director
   ___2. Regional Program Coordinator
   ___3. Regional Industrial Coordinator
   ___4. Regional CETA Coordinator

C. STATE VOCATIONAL SCHOOL POSITIONS
   ___1. Principal
   ___2. Assistant Principal
   ___3. Department Head

D. AREA VOCATIONAL CENTER POSITIONS
   ___1. Coordinator or Principal
   ___2. Assistant Principal
   ___3. Department Head

E. POSITIONS IN CORRECTIONAL INSTITUTIONS AND PRACTICAL NURSING SCHOOLS
   ___1. Coordinator or Principal
   ___2. Assistant Principal

F. PUBLIC SCHOOL SYSTEM POSITIONS
   ___1. Director or Coordinator of Vocational Education
   ___2. Supervisor of Vocational Program Area

G. UNIVERSITY LEVEL POSITIONS
   ___1. Director of Vocational Education
   ___2. Program Coordinator/Supervisor

H. COMMUNITY COLLEGE LEVEL POSITIONS
   ___1. Program Coordinator/Supervisor

If you have applied for an administrative position in vocational education in Kentucky, please complete the section which follows, titled APPLICATION FOR ADMINISTRATION.

If you have not applied for an administrative position, please return this instrument in the envelope provided for that purpose. Return to: Dr. Carolyn Litchfield
University of Kentucky
36 Dickey Hall
Lexington, KY 40506

APPLICATIONS FOR ADMINISTRATION

This section is to be completed only by persons who have applied for administrative positions in vocational education in Kentucky.

DIRECTIONS: 1. Administrative positions in vocational education in Kentucky are listed in the center column marked ADMINISTRATIVE POSITIONS. Refer to the section to the left of this column marked APPLICATION INFORMATION.

- a. Place a check mark in the column marked APPLIED FOR to indicate any position that you have applied for.
- b. In the column marked PLACE OF APPLICATION, indicate where you applied for the position. (State Department, Regional Office, Local System, or Other Location).
- c. In the column marked APPLICATION DATE(S), indicate the approximate date(s) you applied for the position.

2. Refer to the sections to the right of the ADMINISTRATIVE POSITIONS. These sections are marked REASONS FOR NOT BEING HIRED and HIRED ON FOLLOWING DATE.

- a. If you were not hired, indicate the reasons for not being hired by placing a check mark in either the column marked NOT OFFERED or OFFERED: DIDN'T ACCEPT FOR FOLLOWING REASONS. If you didn't accept, indicate the reasons for not accepting.
- b. If you were hired, specify fact that you were hired in the column marked HIRED ON FOLLOWING DATE.

APPLICATION INFORMATION			ADMINISTRATIVE POSITIONS	REASONS FOR NOT BEING HIRED		HIRED ON FOLLOWING DATE
Applied for	Place of Application	Application Date(s)		Not Offered	Offered: Didn't Accept for Following Reasons	
			A. STATE DEPARTMENT OF EDUCATION POSITIONS 1. Deputy Superintendent for Occupational Education			
			2. Assistant Superintendent Bureau for Vocational Education			
			3. Assistant Bureau Officer			
			4. Division Director			
			5. Unit Director			
			6. Unit Assistant Director			
			7. Unit Supervisor			
			8. Unit Coordinator			
			B. REGIONAL LEVEL POSITIONS			
			1. Regional Director			
			2. Regional Program Coordinator			
			3. Regional Industrial Coordinator			
			4. Regional CETA Coordinator			

APPLICATION INFORMATION			ADMINISTRATIVE POSITIONS	REASONS FOR NOT BEING HIRED		HIRED ON FOLLOWING DATE
Applied for	Place of Application	Application Date(s)		Not Offered	Offered: Didn't Accept for Following Reasons	
			C. STATE VOCATIONAL SCHOOL POSITIONS 1. Principal			
			2. Assistant Principal 3. Department Head			
			D. AREA VOCATIONAL CENTER POSITIONS 1. Coordinator or Principal			
			2. Assistant Principal			
			3. Department Head			
			E. POSITIONS IN CORRECTIONAL INSTITUTIONS AND PRACTICAL NURSING SCHOOLS 1. Coordinator or Principal			
			2. Assistant Principal			
			F. PUBLIC SCHOOL SYSTEM POSITIONS 1. Director or Coordinator of Vocational Education			
			2. Supervisor of Vocational Program Area			
			G. UNIVERSITY LEVEL POSITIONS 1. Director of Vocational Education			
			2. Program Coordinator/ Supervisor			
			H. COMMUNITY COLLEGE LEVEL POSITIONS 1. Program Coordinator/ Supervisor			
			I. OTHER, Please Specify:			

Return this instrument in the envelope provided for that purpose. Return to:

Dr. Carolyn Litchfield
University of Kentucky
36 Dickey Hall
Lexington, KY 40506

APPENDIX C

FOLLOW-UP LETTERS

PHASE II

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

December 1, 1978

Dear Vocational Educator:

You were recently selected to participate in a research study regarding employment patterns in vocational education. In mid-November, you should have received an information packet from me regarding this study. The data you can provide through completing this packet is most important to our research.

To date your response has not reached my office. If your instruments have been mailed, please disregard this letter and accept my sincere appreciation and thanks for your help.

If you have not yet had time to complete the instruments, won't you please take about 20 minutes today for that purpose and send it by return mail immediately?

Perhaps you did not receive an information packet or have misplaced the original instruments. If this is the case, please notify me via mail or by calling 606-257-2998. I shall be most happy to provide you with the necessary material.

Thank you for your kind consideration.

Sincerely,

Dr. Carolyn G. Litchfield
Project Director

CGL/so

AN EQUAL OPPORTUNITY UNIVERSITY

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

December 12, 1978

Dear Vocational Educator:

The other day I received a letter from one of your colleagues. The letter read: "I'd be glad to contribute to the study regarding employment patterns in Vocational Education, but I can't find the instrument package!"

Was your original instrument package misplaced or lost in the mail? If so, you still have an opportunity to participate in the study. Just complete the enclosed package and mail it to me in the envelope provided for that purpose. Your prompt reply will insure that all areas of vocational education are adequately represented.

Your consideration will be greatly appreciated. Please let us hear from you prior to the holidays.

Sincerely,

Dr. Carolyn Litchfield
Project Director

CL/so

Enclosures

APPENDIX D

DEMOGRAPHIC DATA REGARDING TEACHERS

TABLE 75

SUMMARY OF DEMOGRAPHIC CHARACTERISTICS OF VOCATIONAL EDUCATION TEACHERS (Respondents Phase II)

Item	Male		Female		Total	
	F	%	F	%	F	%
AGE						
20-29	28	19.5	34	19.6	62	19.7
30-39	46	32.2	56	32.3	102	32.2
40-49	35	24.5	53	30.6	88	27.9
50-60	23	16.0	25	14.5	48	15.1
Over 60	11	7.7	4	2.3	15	4.7
Not Specified			1	.6	1	.3
Total	143	99.9	173	99.9	316	99.9
RACE						
Black	5	3.5	5	2.8	10	3.2
White	136	95.1	167	96.5	303	95.8
Other			1	.6	1	.3
Not Specified	2	1.4			2	.6
Total	143	100.0	173	99.9	316	99.9
MARITAL STATUS						
Single, never married	8	5.6	20	11.5	28	8.9
Married, live with spouse	130	90.9	132	76.3	262	82.9
Divorced	4	2.7	13	7.5	17	5.3
Separated			1	.6	1	.3
Widowed			6	3.5	6	1.9
Not Specified	1	.7	1	.6	2	.6
Total	143	99.9	173	100.0	316	99.9
MOBILITY						
Free to relocate	28	19.5	28	16.2	56	17.7
No desire to relocate	105	73.4	119	68.7	224	70.9
Unable to relocate	5	3.5	24	13.9	29	9.1
Not specified	5	3.5	2	1.1	7	2.2
Total	143	99.9	173	99.9	316	99.9
DEPENDENT CHILDREN						
Yes	93	65.0	99	57.2	192	60.7
No	48	33.5	71	41.0	119	37.6
Not Specified	2	1.4	3	1.7	5	1.6
Total	143	99.9	173	99.9	316	99.9

TABLE 75 (Cont'd)

Item	Male		Female		Total	
	F	%	F	%	F	%
HIGHEST DEGREE HELD						
Less than bachelor's	55	38.5	12	7.0	67	21.2
Bachelor's	37	25.8	69	39.8	106	33.5
Master's degree	30	28.0	85	49.1	125	39.6
Specialist	3	2.1	1	.6	4	1.2
Doctorate	1	.7	0		1	.3
R.N.	3	2.1	3	1.7	6	1.9
Other	4	2.7	3	1.7	7	2.2
Total	143	99.9	173	99.9	316	99.9
VOCATIONAL PROGRAM AREA						
Agriculture	34	23.8	4	2.3	38	12.0
Business and Office	11	7.7	63	36.4	74	23.4
Marketing and Distribution	21	14.7	14	8.1	35	11.0
Health Occupations	3	2.1	14	8.1	17	5.4
Home Economics	2	1.4	68	39.3	70	22.1
Trades and Industry	72	50.3	8	4.6	80	25.3
Other			2	1.2	2	.6
Total	143	100.0	173	100.0	316	100.0
YEARS PROFESSIONAL EXPERIENCE IN VOCATIONAL EDUCATION						
Less than 1 year	2	1.4	4	2.3	6	1.9
1 to 5 years	47	32.9	46	26.6	93	29.4
6 to 10 years	51	35.7	57	32.9	108	34.1
11 to 15 years	24	16.8	25	14.5	49	15.5
16 to 20 years	6	4.1	17	9.8	23	7.3
More than 20 years	13	9.1	24	13.9	37	11.7
Total	143	100.0	173	100.0	316	100.0
TOTAL YEARS EXPERIENCE IN CURRENT POSITION						
Less than 1 year	3	2.1	7	4.0	10	3.2
1 to 5 years	50	35.0	48	27.7	98	31.0
6 to 10 years	53	37.0	52	30.1	105	33.2
11 to 15 years	18	12.6	28	16.2	46	14.5
16 to 20 years	8	5.6	15	8.7	23	7.3
More than 20 years	11	7.7	23	13.3	34	10.8
Total	143	100.0	173	100.0	316	100.0

TABLE 75 (Cont'd)

Item	Male		Female		Total	
	F	%	F	%	F	%
SPECIFY THE SCHOOL SITUATION IN WHICH YOU WORK						
High School	60	42.0	127	73.4	187	59.2
Vocational School	79	55.2	35	20.2	114	36.0
Community College			1	.6	1	.3
College or University	3	2.1	1	.6	4	1.3
Junior High			6	3.5	6	1.9
Drop-In Center			2	1.1	2	.6
Morehead Treatment Center			1	.6	1	.3
Kentucky State Reformatory	1	.7		100.0	1	.3
Total	143	100.0	173		316	100.0

APPENDIX E

INSTRUMENT PACKET

PHASE III

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

Dear Administrator:

The U. S. Office of Education has awarded a federal research grant to the Department of Vocational Education to study employment patterns in vocational education administration. The results of this research effort will provide information important in program planning for vocational education. The study has implications for individuals concerned with vocational education from the classroom through top administration and into the total community.

Several members of the University faculty are involved in this research effort including Dr. Carl Lamar, Professor of Vocational Education; Dr. Ron Dillehay, Chairman of the Department of Psychology; and, Dr. Marjorie Stewart, Dean of the College of Home Economics. Dr. Carolyn Litchfield, Assistant Professor of Vocational Education, is serving as project director. In addition, Dr. Sue Couch and Ms. Pat Wilson have been serving as Research Associates.

Your assistance is needed in the conduct of this research effort. Enclosed you will find instructions from Dr. Litchfield regarding the manner in which you can contribute to this investigation.

Thanking you in advance for your cooperation.

Cordially,

Harold R. Binkley, Chairman
Department of Vocational Education

HRB/so

Enclosures

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

Dear Administrator:

You have been selected to participate in the federally funded research project designed to study employment patterns in vocational education administration. Your involvement will require approximately twenty minutes of your time and will help assure that all areas of vocational education are adequately represented.

Our project staff has compiled the enclosed package of materials designated to obtain information regarding your background, attitudes, perceptions, and aspirations. We are requesting your assistance as follows:

1. Select a quiet location where you will be able to complete the package.
2. Without obtaining the assistance of other individuals, complete each section as directed. There are no incorrect answers.
3. Return by November 30, 1978 in the enclosed envelope which requires no postage.

In the upper right-hand corner of the package, you will notice an identifying number. This is placed on the package to facilitate the collection and analysis of data. Your responses will be handled in a confidential manner and will become anonymous in the analysis of data and report of the study. Please be advised that participants may withdraw and/or discontinue participation in the project at any time without prejudice against them.

If you have questions regarding the research, we will be happy to answer them. Address specific inquiries to the project director. A summary of the research findings will be available after June 15, 1979. Requests for such should be addressed to the project director.

Thank you for your contribution to our research. Your efforts will support the development of vocational programs.

Sincerely,

Carolyn Litchfield
Project Director

Have a cup of coffee on us while you complete your instrument!

CL/so

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Enclosures

SURVEY OF ADMINISTRATORS

INSTRUCTIONS: Provide the information requested by completing each section as directed.

Age (Check one)
_____1. 20-29
_____2. 30-39
_____3. 40-49
_____4. 50-60
_____5. Over 60

Sex (Check one)
_____1. Male
_____2. Female

Race (Check one)
_____1. Black
_____2. White
_____3. Other, specify: _______________

Residence
Specify the school district in which you live: _______
____

Mobility (Check one)
_____1. Free to relocate
_____2. No desire to relocate
_____3. Unable to relocate; specify reason: _______________

Marital Status (Check one)
_____1. Single, never married
_____2. Married, live with spouse
_____3. Divorced
_____4. Separated
_____5. Widowed

Support of Spouse
To what extent has your spouse encouraged your participation in the following activities? (For each item, check the space corresponding to the most appropriate number) If you have no spouse, check the column marked N/A.

		None					Total	
	N/A	0	1	2	3	4	5	6
a. Educational activities		–	–	–	–	–	–	–
b. Professional career		–	–	–	–	–	–	–

Dependent Children
Answer question "a" and proceed as directed:
a. Do you have any dependent children? (Check yes or no)
____Yes ____No
If yes, answer "b" and "c".
If no, move to the section marked "Highest Degree Held"
b. Specify the number of children in the following age groups:
____1. Less than 2 years
____2. 3-5 years
____3. 6-12 years
____4. 13-18 years
____5. Over 18 years
How many dependent children live with you?
(Check "none" or enter number)
____None or _____

Highest Degree Held (Check one)
_____1. Less than Bachelors Degree
_____2. Bachelors Degree
_____3. Masters Degree
_____4. Specialist
_____5. Doctorate
_____6. Other, specify:
____

Additional Education or Training
(Specify the information requested)
a. Number of hours completed beyond the last degree: _____None
_____semester hours _____quarter hours
b. Name any degree or other objective (such as Rank I) toward which you are currently working
____

Educational Preparation
Have you obtained any formal education and/or training in vocational education? (Check one)
____Yes, specify type of education or training
____
____
____No

Vocational Program Area
(Check the major vocational program area in which you are employed)
_____1. Agriculture
_____2. Business and Office
_____3. Marketing & Distribution
_____4. Health Occupations
_____5. Home Economics
_____6. Trades and Industry
_____7. Other Vocational Program Area, specify: _______________________
____
_____8. Non-vocational program area; specify: _______________________

Total Years Professional Experience in Vocational Education (Check one)
_____1. Less than 1 year
_____2. 1 to 5 years
_____3. 6-10 years
_____4. 11-15 years
_____5. 16-20 years
_____6. More than 20 years

Total Years Experience in Current Position (Check one)
_____1. Less than 1 year
_____2. 1 to 5 years
_____3. 6 to 10 years
_____4. 11 to 15 years
_____5. 16 to 20 years
_____6. More than 20 years

Position Title (Check one)
_____1. State Director
_____2. State Supervisor
_____3. Regional Director
_____4. Regional Coordinator
_____5. Vocational School Principal
_____6. Coordinator, Area Vocational Education Center
_____7. Local District Director
_____8. Local District Supervisor
_____9. Community College
_____10. University Administrator
_____11. Other _______________

Attitude Regarding Current Position
(Answer "a" through "c")

a. How do you feel about the position you now have? (Check one)

____Like very much
____Like fairly well
____Dislike somewhat
____Dislike very much

b. How do you feel about the following aspects of your job? (Check one space for each item)

	Like Very Much 1	Like Fairly Well 2	Dislike Somewhat 3	Dislike Very Much 4
1. Salary or wages	___	___	___	___
2. Work hours	___	___	___	___
3. Working conditions	___	___	___	___
4. Treatment by supervisor	___	___	___	___
5. Opportunity to advance	___	___	___	___
6. Relations with co-workers	___	___	___	___
7. Health benefits	___	___	___	___
8. The work itself	___	___	___	___

Certification
(Provide the following information regarding your certification):

a. Type of teaching certificate held: ____________________

b. Date teaching certificate needs to be renewed: ____________________

c. Do you hold the certificate for administration, supervision and coordination of vocational education? (Check one)

____ Yes
____ No, but qualified if I apply
____ No, but working toward it
____ No, but plan to work toward it

d. Specify any other administrative certificate held: ____________________

Work Experience
Have you worked directly with any of the following administrators (principal, coordinator, director or other supervisor)?

	Yes	No
Male Administrator	___	___
Female Administrator	___	___

c. To what extent do you face the following problems as an employee? (Check one space for each item.)

	Very Serious Problem 1	Somewhat of a Problem 2	Occasionally a Problem 3	Rarely a Problem 4	No Problem 5	Not an Issue 6
1. Burden of the job combined with the family	___	___	___	___	___	___
2. I lack the self-confidence to get ahead on my job	___	___	___	___	___	___
3. Job is too difficult for me	___	___	___	___	___	___
4. Job is physically tiring	___	___	___	___	___	___
5. Need child care	___	___	___	___	___	___
6. Children are too young for my peace of mind	___	___	___	___	___	___
7. Would like more help at home	___	___	___	___	___	___
8. Problems with teenage children	___	___	___	___	___	___
9. Spouse doesn't want me to work	___	___	___	___	___	___
10. Job doesn't pay enough	___	___	___	___	___	___
11. Need full-time work	___	___	___	___	___	___
12. Would like to quit work, but can't afford to	___	___	___	___	___	___
13. Layoffs and unemployment	___	___	___	___	___	___
14. Job doesn't really use my skills	___	___	___	___	___	___
15. No chance to train for better job	___	___	___	___	___	___
16. Lack job counseling	___	___	___	___	___	___
17. Job is boring	___	___	___	___	___	___
18. Transportation	___	___	___	___	___	___
19. Discrimination because of sex	___	___	___	___	___	___
20. No time to continue my education	___	___	___	___	___	___
21. Sexual harassment on the job	___	___	___	___	___	___
22. Would prefer part-time work	___	___	___	___	___	___
23. Discrimination because of race	___	___	___	___	___	___
24. No time for leisure	___	___	___	___	___	___
25. Other, specify: ____________________	___	___	___	___	___	___

BEM

A series of personality characteristics are listed below. Use these characteristics to describe yourself. Indicate on a scale from 1 to 7 how true of you these various characteristics are. Please do not leave any characteristic unmarked.

EXAMPLE: sly

Mark a "1" if it is NEVER OR ALMOST NEVER TRUE that you are sly.

Mark a "2" if it is USUALLY NOT TRUE that you are sly.

Mark a "3" if it is SOMETIMES BUT INFREQUENTLY TRUE that you are sly.

Mark a "4" if it is OCCASIONALLY TRUE that you are sly.

Mark a "5" if it is OFTEN TRUE that you are sly.

Mark a "6" if it is USUALLY TRUE that you are sly.

Mark a "7" if it is ALWAYS OR ALMOST ALWAYS TRUE that you are sly.

Thus, if you feel it is sometimes but infrequently true that you are "sly," never or almost never true that you are "malicious," always or almost always true that you are "irresponsible," and often true that you are "carefree," then you would rate these characteristics as follows:

Sly	3	Irresponsible	7
Malicious	1	Carefree	5

DESCRIBE YOURSELF

1	2	3	4	5	6	7
NEVER OR ALMOST NEVER TRUE	USUALLY NOT TRUE	SOMETIMES BUT INFREQUENTLY TRUE	OCCASIONALLY TRUE	OFTEN TRUE	USUALLY TRUE	ALWAYS OR ALMOST ALWAYS TRUE

Self reliant		Reliable		Warm	
Yielding		Analytical		Solemn	
Helpful		Sympathetic		Willing to take a stand	
Defends own beliefs		Jealous		Tender	
Cheerful		Has leadership abilities		Friendly	
Moody		Sensitive to the needs of others		Aggressive	
Independent		Truthful		Gullible	
Shy		Willing to take risks		Inefficient	
Conscientious		Understanding		Acts as a leader	
Athletic		Secretive		Childlike	
Affectionate		Makes decisions easily		Adaptable	
Theatrical		Compassionate		Individualistic	
Assertive		Sincere		Does not use harsh language	
Flatterable		Self-sufficient		Unsystematic	
Happy		Eager to soothe hurt feelings		Competitive	
Strong personality		Conceited		Loves children	
Loyal		Dominant		Tactful	
Unpredictable		Soft-spoken		Ambitious	
Forceful		Likable		Gentle	
Feminine		Masculine		Conventional	

TSBIA. The statements listed below refer to background and social behavior data. Using the scale a through e, indicate the degree to which these statements refer to you. Please do not leave any statement unmarked.

EXAMPLE: I would describe myself as socially unskilled.

Circle "a" if it is NOT AT ALL CHARACTERISTIC of you.

Circle "b" if it is NOT VERY characteristic of you.

Circle "c" if it is SLIGHTLY characteristic of you.

Circle "d" if it is FAIRLY characteristic of you.

Circle "e" if it is VERY MUCH characteristic of you.

Statements	Scale				
	Not at all characteristic of me	Not Very	Slightly	Fairly	Very Much characteristic of me
1. I am not likely to speak to people until they speak to me.	a	b	c	d	e
2. I would describe myself as self-confident.	a	b	c	d	e
3. I feel confident of my appearance.	a	b	c	d	e
4. I am a good mixer.	a	b	c	d	e
5. When in a group of people, I have trouble thinking of the right things to say.	a	b	c	d	e
6. When in a group of people, I usually do what the others want rather than make suggestions.	a	b	c	d	e
7. When I am in disagreement with other people, my opinion usually prevails.	a	b	c	d	e
8. I would describe myself as one who attempts to master situations.	a	b	c	d	e
9. Other people look up to me.	a	b	c	d	e
10. I enjoy social gatherings just to be with people.	a	b	c	d	e
11. I make a point of looking other people in the eye.	a	b	c	d	e
12. I cannot seem to get others to notice me.	a	b	c	d	e
13. I would rather not have very much responsibility for other people.	a	b	c	d	e
14. I feel comfortable being appproached by someone in a position of authority.	a	b	c	d	e
15. I would describe myself as indecisive.	a	b	c	d	e
16. I have no doubts about my social competence.	a	b	c	d	e

Aspirations

For each of the administrative positions in vocational education in Kentucky indicate the likelihood of your seeking one or more of them using the following scale:

1. I would never seek this position
2. It is very unlikely that I would seek this position
3. There is some possibility that I would seek this position
4. It is very likely that I would seek this position
5. I am certain to apply for this position
6. I have already applied for this position

Write the number from the scale in the space provided to the left of each administrative position.

A. STATE DEPARTMENT OF EDUCATION POSITIONS
   ___1. Deputy Superintendent for Occupational Education
   ___2. Assistant Superintendent Bureau for Vocational Education
   ___3. Assistant Bureau Officer
   ___4. Division Director
   ___5. Unit Director
   ___6. Unit Assistant Director
   ___7. Unit Supervisor
   ___8. Unit Coordinator

B. REGIONAL LEVEL POSITIONS
   ___1. Regional Director
   ___2. Regional Program Coordinator
   ___3. Regional Industrial Coordinator
   ___4. Regional CETA Coordinator

C. STATE VOCATIONAL SCHOOL POSITIONS
   ___1. Principal
   ___2. Assistant Principal
   ___3. Department Head

D. AREA VOCATIONAL CENTER POSITIONS
   ___1. Coordinator or Principal
   ___2. Assistant Principal
   ___3. Department Head

E. POSITIONS IN CORRECTIONAL INSTITUTIONS AND PRACTICAL NURSING SCHOOLS
   ___1. Coordinator or Principal
   ___2. Assistant Principal

F. PUBLIC SCHOOL SYSTEM POSITIONS
   ___1. Director or Coordinator of Vocational Education
   ___2. Supervisor of Vocational Program Area

G. UNIVERSITY LEVEL POSITIONS
   ___1. Director of Vocational Education
   ___2. Program Coordinator/Supervisor

H. COMMUNITY COLLEGE LEVEL POSITIONS
   ___1. Program Coordinator/Supervisor

If you have applied for an administrative position in vocational education in Kentucky, please complete the section which follows, titled APPLICATION FOR ADMINISTRATION.

If you have not applied for an administrative position, please return this instrument in the envelope provided for that purpose. Return to:

Dr. Carolyn Litchfield
University of Kentucky
36 Dickey Hall
Lexington, KY 40506

APPLICATIONS FOR ADMINISTRATION

This section is to be completed only by persons who have applied for administrative positions in vocational education in Kentucky.

DIRECTIONS: 1. Administrative positions in vocational education in Kentucky are listed in the center column marked ADMINISTRATIVE POSITIONS. Refer to the section to the left of this column marked APPLICATION INFORMATION.

- a. Place a check mark in the column marked APPLIED FOR to indicate any position that you have applied for.
- b. In the column marked PLACE OF APPLICATION, indicate where you applied for the position. (State Department, Regional Office, Local System, or Other Location).
- c. In the column marked APPLICATION DATE(S), indicate the approximate date(s) you applied for the position.

2. Refer to the sections to the right of the ADMINISTRATIVE POSITIONS. These sections are marked REASONS FOR NOT BEING HIRED and HIRED ON FOLLOWING DATE.

- a. If you were not hired, indicate the reasons for not being hired by placing a check mark in either the column marked NOT OFFERED or OFFERED: DIDN'T ACCEPT FOR FOLLOWING REASONS. If you didn't accept, indicate the reasons for not accepting.
- b. If you were hired, specify fact that you were hired in the column marked HIRED ON FOLLOWING DATE.

APPLICATION INFORMATION			ADMINISTRATIVE POSITIONS	REASONS FOR NOT BEING HIRED		HIRED ON FOLLOWING DATE
Applied for	Place of Application	Application Date(s)		Not Offered	Offered: Didn't Accept for Following Reasons	
			A. STATE DEPARTMENT OF EDUCATION POSITIONS 1. Deputy Superintendent for Occupational Education			
			2. Assistant Superintendent Bureau for Vocational Education			
			3. Assistant Bureau Officer			
			4. Division Director			
			5. Unit Director			
			6. Unit Assistant Director			
			7. Unit Supervisor			
			8. Unit Coordinator			
			B. REGIONAL LEVEL POSITIONS 1. Regional Director			
			2. Regional Program Coordinator			
			3. Regional Industrial Coordinator			
			4. Regional CETA Coordinator			

APPLICATION INFORMATION			ADMINISTRATIVE POSITIONS	REASONS FOR NOT BEING HIRED		HIRED C FOLLOWING DATE
Applied for	Place of Application	Application Date(s)		Not Offered	Offered: Didn't Accept for Following Reasons	
			C. STATE VOCATIONAL SCHOOL POSITIONS 1. Principal			
			2. Assistant Principal 3. Department Head			
			D. AREA VOCATIONAL CENTER POSITIONS 1. Coordinator or Principal			
			2. Assistant Principal			
			3. Department Head			
			E. POSITIONS IN CORRECTIONAL INSTITUTIONS AND PRACTICAL NURSING SCHOOLS 1. Coordinator or Principal			
			2. Assistant Principal			
			F. PUBLIC SCHOOL SYSTEM POSITIONS 1. Director or Coordinator of Vocational Education			
			2. Supervisor of Vocational Program Area			
			G. UNIVERSITY LEVEL POSITIONS 1. Director of Vocational Education			
			2. Program Coordinator/ Supervisor			
			H. COMMUNITY COLLEGE LEVEL POSITIONS 1. Program Coordinator/ Supervisor			
			I. OTHER, Please Specify:			

Return this instrument in the envelope provided for that purpose. Return to:

Dr. Carolyn Litchfield
University of Kentucky
36 Dickey Hall
Lexington, KY 40506

APPENDIX F

FOLLOW-UP LETTERS

PHASE III

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

December 1, 1978

Dear Administrator:

You were recently selected to participate in a research study regarding employment patterns in vocational education. In mid-November, you should have received an information packet from me regarding this study. The data you can provide through completing this packet is most important to our research.

To date your response has not reached my office. If your instruments have been mailed, please disregard this letter and accept my sincere appreciation and thanks for your help.

If you have not yet had time to complete the instruments, won't you please take about 20 minutes today for that purpose and send it by return mail immediately?

Perhaps you did not receive an information packet or have misplaced the original instruments. If this is the case, please notify me via mail or by calling 606-257-2998. I shall be most happy to provide you with the necessary material.

Thank you for your kind consideration.

Sincerely,

Dr. Carolyn G. Litchfield
Project Director

CGL/so

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

December 12, 1978

Dear Administrator:

The other day I received a letter from one of your colleagues. The letter read: "I'd be glad to contribute to the study regarding employment patterns in Vocational Education, but I can't find the instrument package!"

Was your original instrument package misplaced or lost in the mail? If so, you still have an opportunity to participate in the study. Just complete the enclosed package and mail it to me in the envelope provided for that purpose. Your prompt reply will insure that all areas of administration are adequately represented.

Your consideration will be greatly appreciated. Please let us hear from you prior to the holidays.

Sincerely,

Dr. Carolyn Litchfield
Project Director

CL/so

Enclosures

APPENDIX G

DEMOGRAPHIC DATA REGARDING ADMINISTRATORS

TABLE 76

SUMMARY OF DEMOGRAPHIC CHARACTERISTICS OF ADMINISTRATORS (Respondents Phase III)

Item	Frequency	Percent
AGE		
20-29	4	2.6
30-39	49	32.5
40-49	57	37.7
50-60	38	25.2
Over 60	3	2.0
Total	151	100.0
SEX		
Male	133	88.0
Female	18	12.0
Total	151	100.0
RACE		
Black	3	2.0
White	148	98.0
Other, specify		
Total	151	100.0
MOBILITY		
Free to relocate	47	31.1
No desire to relocate	98	65.0
Unable to relocate	2	1.3
No response	4	2.6
Total	151	100.0
MARITAL STATUS		
Single, never married	4	2.6
Married, live with spouse	135	89.4
Divorced	9	6.0
Separated	2	1.3
Widowed	1	.4
Total	151	100.0
DEPENDENT CHILDREN		
Yes	116	77.0
No	32	21.0
Not Specified	3	2.0
Total	151	100.0

TABLE 76 (Cont'd)

Item	Frequency	Percent
HIGHEST DEGREE HELD		
Less than bachelor's	3	2.0
Bachelor's	25	16.5
Master's degree	86	57.0
Specialist	13	8.6
Doctorate	23	15.2
R.N.	1	.7
Total	151	100.0
PROGRAM AREA		
Agriculture	4	2.6
Business and Office	11	7.2
Marketing and Distribution	2	1.3
Health Occupations	6	3.9
Home Economics	1	.6
Trades and Industry	34	24.0
Administration	62	40.0
Other	22	14.5
Not Specified	9	5.9
Total	151	100.0
YEARS EXPERIENCE IN VOCATIONAL EDUCATION		
Less than 1 year	5	3.3
1 to 5 years	19	12.6
6 to 10 years	37	24.5
11 to 15 years	50	33.1
16 to 20 years	13	8.6
More than 20 years	23	15.2
Not Specified	4	2.6
Total	151	99.9
POSITION TITLE		
State Director	11	7.2
State Supervisor	2	1.3
Regional Director	10	6.6
Regional Coordinator	1	.7
Vocational School Principal	18	11.9
Coordinator Area Vocational Education Center	59	39.0
Local District Director	4	2.6
Local District Supervisor	2	1.3
Community College Administrator	11	7.3
University Administrator	13	8.6
Teacher Educator	1	.7

TABLE 76 (Cont'd)

Item	Frequency	Percent
POSITION TITLE (Cont'd)		
Superintendent	2	1.3
Personnel Director	2	1.3
Vice President for Academic Affairs	1	.7
Division Director	5	3.3
Deputy Director of Vocational Education	1	.7
Unit Director	5	3.3
State Coordinator	1	.7
Director CDC	1	.7
Other	1	.7
Total	151	100.0

APPENDIX H

INTERVIEW SCHEDULE AND DATA SHEETS

PHASE IV

SURVEY: EMPLOYMENT POLICIES AND PRACTICES

Good Morning (Afternoon) ______________________. I am ______________ from the University of Kentucky's Department of Vocational Education. I am here to interview you regarding employment policies and practices in your organization.

We are talking with all of the individuals who are involved in the process of hiring administrators for vocational education in Kentucky. We realize that some of the questions we will be asking are difficult to answer--the information may be sketchy, or the issues may be sensitive. Please answer as best you can, with the information available to you. Your answers will be treated confidentially. What we learn will not be identified with any individual or program. Our results will be reported as group information only. Shall we begin?

I. One of the things we are interested in is how the people we interview came to be administrators.

1. Would you tell me how you decided to become an administrator?

____

____

____

____

____

2. What steps did you take in obtaining your administrative position?

____

____

____

____

____

____

II. The next questions deal with: General Employment Policy and Procedure

1. Are there set procedures to follow in order to hire an individual for an administrative position in vocational education within your organization?

_____ No

_____ Yes; a) What are these procedures?

____

____

b) Are they in writing?

_____ No

_____ Yes; could I have a copy? _____ No

_____ Yes

c) How do they work for you?

____

____

____

2. One of the areas which gets a lot of attention today is the employment of women. Are you aware of any barriers to the employment of women in administrative positions in vocational education?

_____ No

_____ Yes; What do you consider to be the barriers?

____

____

____

____

____

3. Have attempts been made by your organization to review the following items to consider sexist language or implications that they might contain?

	No	Yes	Don't Know
a. Policy and Procedure Manuals			
b. Job Descriptions			
c. Employment Applications			
d. Recruitment Materials			

4. Has an analysis of present employment patterns been made by:

	No	Yes	Don't Know
a. Sex			
b. Race			
c. Position			
d. Salary			

5. Has your organization made any attempts to identify areas where women are concentrated or under-utilized and the extent of under-utilization?

_____ No; Why not? ______________________________

_____ Yes; What were some of the things you found?

____

____

____

____

6. Do you find it easy or difficult to identify women who are qualified to be administrators in vocational education?

_____ Easy

_____ Difficult: Why is it difficult?

_____ Not enough trained
_____ Salary schedule
_____ Attitude on part of women
_____ Other reasons; specify: ______________________

III. Our next questions deal with affirmative action.

1. How serious is the support for affirmative action for women within your organization?

_____ Very Serious
_____ Serious
_____ Not at all serious

2. Has your organization designated a Title IX coordinator or affirmative action coordinator?

_____ No

_____ Yes; a) Who is the coordinator?

Name: ________________________________ M F

b) As the coordinator, what does this person do? ____________

____

c) Does a job description exist?

_____ No

_____ Yes; May I have a copy? _____ No

_____ Yes

d) What duties does this individual perform in addition to Title IX coordination?

____

____

____

____

3. What procedure is used to handle applicant complaints alleging violations of Title IX or sex bias?

____

____

____

____

IV. Let's Look at Recruitment

1. Regarding the people who hire administrators--does your organization help these people apply affirmative action principles?

_____ No

_____ Yes; Tell me about it: ________________________________

____

____

2. Are persons actively recruited for administrative positions in vocational education?

_____ No

_____ Yes; a) Who does the recruiting? ______________________

b) Are women actively recruited for administrative positions in vocational education?

_____ No

_____ Yes

c) Is your organization doing anything to publicize or promote opportunities for women in administrative positions in vocational education?

_____ No

_____ Yes; If so, what is being done? ______________________

____

3. How does your organization announce vacancies for administrative positions in vocational education?

____

____

____

4. Does your organization encourage individuals who seek administrative positions in vocational education?

_____ No

_____ Yes; How do you go about it? ______________________

____

____

V. Now, let's talk about selection.

1. What are some of the essential qualifications your organization would look for in selecting administrators for vocational education?

____

____

____

____

2. To what extent are women included in the decision-making process related to selecting administrators for vocational education?

____

____

____

3. Who makes the final decision on hiring a person in your organization?

Name: ________________________________ M F

Title: ________________________________

4. Are any of the following items required of individuals who are applying for administrative positions in vocational education?

- Personal Histories	Yes	No	Don't Know
- Background Requirements	Yes	No	Don't Know
- Specific Educational Experience	Yes	No	Don't Know
- Specific Work Experience	Yes	No	Don't Know
- Application Forms	Yes	No	Don't Know
- Interview Rating Systems	Yes	No	Don't Know
- Paper and Pencil Tests*	Yes	No	Don't Know
- Qualifying Exams*	Yes	No	Don't Know

*If yes, ask following questions:

a) What employment tests or qualifying exams are required of applicants for administrative positions in vocational education? ____________

____

b) How many times may a candidate take an employment test or qualifying exam? ____________

c) Are specific scores required for qualifying for different positions?

_____ No

_____ Yes; What use is made of these scores? ____________________

____

VI. Let's Focus on Promotion.

1. What are the criteria for promotion to administrative positions in vocational education in your organization?

____

____

____

2. Do "job enrichment" or "career ladder" programs for advancement exist within your organization?

    ____ No; Is there some reason why you don't have it? Can you tell me about it? ____

    ____

    ____

    ____ Yes; Tell me about it. ____________________________________

    ____

    ____

3. Is there a particular effort made to direct these programs to the needs of women?

    ____ No

    ____ Yes; What kinds of things are done? ______________________

    ____

    ____

4. Does your organization have an administrative intern program?

    ____ No

    ____ Yes

VII. We are coming to the home stretch. I'd like to ask you about the status of women presently in your organization.

1. Do you have any women serving as administrators in your organization?

    ____ No

    ____ Yes; a) How many? ______________

    b) In what capacity? ________________________________

    c) Are they encouraged to seek higher positions? __________

    d) How are their working relations with the rest of the staff?

    ____

    e) How would you rate their job performance in comparison to males in the same position(s)? ____________________

    ____

2. If you have a female vocational administrator working in your organization at the present time:

a) Approximately what is her current salary? ______________________

b) Would her salary equal that of a male in the same position?

_____ Yes

_____ No; Can you identify the main reasons for the difference?

____

3. Has your organization investigated possible discrepancies between males and females in terms of employment conditions such as:

- Length of service
- Actual job duties compared with job
- Assignment of pay for extra duties
- Opportunities for overtime
- Opportunities for raises
- Opportunities for bonuses

_____ No; Why hasn't such an investigation been done? ______________

____

____

_____ Yes; Tell me how the investigation was done: ______________

____

____

____

VIII. We are interested in information regarding the extent of female applicants for administrative positions in vocational education. I realize that you may not have the specific information requested at hand at the moment. (Show chart with information needed.)

-- If you do, I will be happy to take it.

-- If not, I wonder if you would see that the following data are compiled for us. We've provided a self-addressed return envelope for your convenience. If at all possible, I would like to have the information by __________.

IX. At this point in time, please feel free to make any additional comments regarding employment policies and practices. in your organization.

a) Additional comments: ______________________________

____

____

____

____

b) Requests: ______________________________

____

____

____

____

CLOSING

That concludes our interview. Thank you for your time. Let Dr. Litchfield know if there are questions you have or if we can be of service to you somehow. Thanks again!

Extent of Female Applicants: State Department of Education - Unit Director

The following questions are related to applications from January 1, 1978 through December 31, 1978:

	Unit Director	Unit Assistant Director	Unit Supervisor	Unit Coordinator
a. Approximately how many applications were received for the following positions?				
b. Approximately how many of these applicants were female?				
c. Approximately how many females reached the top three candidates?				

d. In what number of cases has a male candidate been accepted over a female? ____________________

e. What were the reasons for accepting the male candidate(s) over female candidate(s)? ____________________

____

____

f. If female(s) were selected and didn't accept, what reasons did they express for not accepting? __________

____

____

Return to: Carolyn Litchfield, Ed.D.
Project Director
University of Kentucky
36 Dickey Hall
Lexington, Kentucky 40506
(606) 257-2998

Extent of Female Applicants: State Department of Education: All Positions

The following questions are related to applications from January 1, 1978 through December 31, 1978:

	Deputy Superintendent for Occupational Education	Assistant Superintendent, Bureau for Vocational Education	Assistant Bureau Officer	Division Director	Unit Director	Unit Assistant Director	Unit Supervisor	Unit Coordinator	Regional Director	Regional Program Coordinator	Regional Industrial Coordinator	Regional CETA Coordinator	State Vocational School Principal	State Vocational School Assistant Principal	State Vocational School Department Head	Area Center Coordinator or Principal	Area Center Assistant Principal	Area Center Department Head	Coordinator or Principal Correctional Institution	Assistant Principal Correctional Institution	Coordinator or Principal Practical Nursing School	Assistant Principal Practical Nursing School
a. Approximately how many applications were received for the following positions?																						
b. Approximately how many of these applicants were female?																						
c. Approximately how many females reached the top three candidates?																						

d. In what number of cases has a male candidate been accepted over a female? __________

e. What were the reasons for accepting the male candidate(s) over female candidate(s)? __________

f. If female(s) were selected and didn't accept, what reasons did they express for not accepting? __________

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Project Director
University of Kentucky
36 Dickey Hall
Lexington, Kentucky 40506
(606) 257-2998

Extent of Female Applicants: State Department of Education - Division Director

The following questions are related to applications from January 1, 1978 through December 31, 1978:

	Division Director	Unit Director	Unit Assistant Director	Unit Supervisor	Unit Coordinator
a. Approximately how many applications were received for the following positions?					
b. Approximately how many of these applicants were female?					
c. Approximately how many females reached the top three candidates?					

d. In what number of cases has a male candidate been accepted over a female? ____________________

e. What were the reasons for accepting the male candidate(s) over female candidate(s)? ____________

____

____

f. If female(s) were selected and didn't accept, what reasons did they express for not accepting? ________

____

____

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Project Director
University of Kentucky
36 Dickey Hall
Lexington, Kentucky 40506
(606) 257-2998

Extent of Female Applicants: State Vocational Schools

The following questions are related to applications from January 1, 1978 through December 31, 1978:

	Principal	Assistant Principal	Department Head
a. Approximately how many applications were received for the following positions?			
b. Approximately how many of these applicants were female?			
c. Approximately how many females reached the top three candidates?			

d. In what number of cases has a male candidate been accepted over a female? ____________________

e. What were the reasons for accepting the male candidate(s) over female candidate(s)? __________

f. If female(s) were selected and didn't accept, what reasons did they express for not accepting? ___

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Project Director
University of Kentucky
36 Dickey Hall
Lexington, Kentucky 40506
(606) 257-2998

Extent of Female Applicants: Regional Level

The following questions are related to applications from January 1, 1978 through December 31, 1978:

	Regional Director	Regional Program Coordinator	Regional Industrial Coordinator	Regional CETA Coordinator	State Vocational School Principal	State Vocational School Assistant Principal	State Vocational School Department Head	Area Center Coordinator or Principal	Area Center Assistant Principal	Area Center Department Head	Coordinator or Principal Correctional Institution	Assistant Principal Correctional Institution	Coordinator or Principal Practical Nursing School	Assistant Principal Practical Nursing School
a. Approximately how many applications were received for the following positions?														
b. Approximately how many of these applicants were female?														
c. Approximately how many females reached the top three candidates?														

d. In what number of cases has a male candidate been accepted over a female? ______

e. What were the reasons for accepting the male candidate(s) over female candidate(s)? ______

f. If female(s) were selected and didn't accept, what reasons did they express for not accepting? ______

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Project Director
University of Kentucky
36 Dickey Hall
Lexington, Kentucky 40506
(606) 257-2998

Extent of Female Applicants: Local School Systems

The following questions are related to applications from January 1, 1978 through December 31, 1978:

	Director or Coordinator of Vocational Education	Supervisor of Vocational Program Areas
a. Approximately how many applications were received for the following positions?		
b. Approximately how many of these applicants were female?		
c. Approximately how many females reached the top three candidates?		

d. In what number of cases has a male candidate been accepted over a female? __________

e. What were the reasons for accepting the male candidate(s) over female candidate(s)? __________

f. If female(s) were selected and didn't accept, what reasons did they express for not accepting? __________

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Project Director
University of Kentucky
36 Dickey Hall
Lexington, Kentucky 40506
(606) 257-2998

Extent of Female Applicants: University Level

The following questions are related to applications from January 1, 1978 through December 31, 1978:

	Director of Vocational Education	Program Coordinator or Supervisor for Vocational Education
a. Approximately how many applications were received for the following positions?		
b. Approximately how many of these applicants were female?		
c. Approximately how many females reached the top three candidates?		

d. In what number of cases has a male candidate been accepted over a female? ______________

e. What were the reasons for accepting the male candidate(s) over female candidate(s)? ______________

f. If female(s) were selected and didn't accept, what reasons did they express for not accepting? ______________

Return to: Carolyn Litchfield, Ed.D.
Project Director
University of Kentucky
36 Dickey Hall
Lexington, Kentucky 40506
(606) 257-2998

Extent of Female Applicants: Community College Level

The following questions are related to applications from January 1, 1978 through December 31, 1978:

	Program Coordinator or Supervisor for Vocational Education
a. Approximately how many applications were received for the following position?	
b. Approximately how many of these applicants were female?	
c. Approximately how many females reached the top three candidates?	

d. In what number of cases has a male candidate been accepted over a female? ____________

e. What were the reasons for accepting the male candidate(s) over female candidate(s)? ____________

____

____

f. If female(s) were selected and didn't accept, what reasons did they express for not accepting? ____

____

____

Return to: Carolyn Litchfield, Ed.D.
Project Director
University of Kentucky
36 Dickey Hall
Lexington, Kentucky 40506
(606) 257-2998

APPENDIX I

LETTERS AND OTHER DATA COLLECTION ITEMS

PHASE IV

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

March, 1979

Dear

You have been selected to participate in a federally funded research project designed to study employment patterns in vocational education. Because you are involved in the process of hiring administrators for vocational education, we are anxious to interview you regarding employment policies and practices. We intend to interview all persons in Kentucky who are involved in making hiring decisions in vocational education.

The purpose of this study is to advance the cause of vocational education in the state of Kentucky and to assure continued funding. Your cooperation is needed to insure the success of the project. Your responses will be treated confidentially.

You will be contacted by phone soon in order to set up a convenient time for this interview. The interview will probably take about thirty minutes of your time.

Thank you in advance for your cooperation. Your contribution to this research effort is very much appreciated. We will be glad to share with you the results of the study.

Most cordially,

Carolyn Litchfield, Ed.D.
Project Director

CL/lbt

AN EQUAL OPPORTUNITY UNIVERSITY

TELEPHONE PROCEDURES

Key: CAPS = INSTRUCTIONS TO THE CALLER; *Script = telephone conversation*

INSTRUCTION

I. TO TELEPHONE, USE THE FOLLOWING PROCEDURES:

A. LOCAL CALLS - dial 9 and number

B. OTHER CALLS:

1. 606# - 18-9-606 plus number

2. 502# - 18-9 plus number

II. ASK FOR THE INDIVIDUAL YOU ARE ASSIGNED TO INTERVIEW.

A. IF THAT INDIVIDUAL IS NO LONGER WORKING AT THAT POSITION, ASK WHO HOLDS THE POSITION AND ASK TO SPEAK TO THAT INDIVIDUAL.

B. IF THE INDIVIDUAL IS NOT IN, ASK IF THE PERSON WHO ANSWERED THE TELEPHONE CAN MAKE AN APPOINTMENT.

1. IF NO, ASK WHEN IT WOULD BE CONVENIENT FOR YOU TO CALL BACK TO TALK WITH THE INDIVIDUAL.

2. IF YES, SCHEDULE AT LEAST A THIRTY-MINUTE APPOINTMENT.

C. IF THE INDIVIDUAL IS IN, MAKE THE APPOINTMENT WITH HIM/HER USING THE PROCEDURES SPECIFIED HEREIN.

Conversation

III. *"Hello ____________________. My name is ____________ from the University of Kentucky. I am calling for the Department of Vocational Education. Recently you were sent a letter from Carolyn Litchfield regarding a study on employment practices in vocational education. Do you recall the letter?"*

INSTRUCTION

WAIT FOR RESPONSE.

I. IF INDIVIDUAL REPLIES: NO

Conversation

"It's a short letter. I'll be glad to read it to you over the phone"

p. 2

INSTRUCTION — IF THEY DO NOT AGREE, ASK THE FOLLOWING QUESTION(S).:

Conversation — A. *"May I explain the purposes of the letter to you?"*

INSTRUCTION

1. IF THE RESPONSE IS NO, MOVE TO QUESTION B AND THANK THEM FOR THEIR TIME.
2. IF THE RESPONSE IS YES, READ THE EXPLANATION OF THE PROJECT (ATTACHED).

Conversation — B. *"May I send you another letter?"*

INSTRUCTION — 1. IF THE RESPONSE IS NO

Conversation — *"We are interviewing individuals regarding employment patterns in vocational education and we need very much to include you in the study. Your responses will be held in strictest confidence".*

INSTRUCTION — IF THEY ARE STILL NOT WILLING TO BE INTERVIEWED, THEN REFER TO THE VALUE OF THE STUDY TO VOCATIONAL EDUCATION, THE STATE DEPARTMENT OF EDUCATION AND TO THEM PERSONALLY.

2. IF THE RESPONSE IS YES

Conversation — *"May I have your mailing address? I will see that the letter is sent and will contact you regarding the contents at a later date"*

INSTRUCTION — II. IF THE RESPONSE IS YES, THEN

Conversation — *"As you recall, the letter stated that I would be calling to make an appointment for an interview. That is the purpose of my call today."*

"I will be in your area ______________ and would like to arrange for the interview."

"Will you check your calendar and see if we can set up a time that is mutually convenient?"

INSTRUCTION — ATTEMPT TO ESTABLISH AN INTERVIEW DATE THAT IS MUTUALLY CONVENIENT. IF A DATE CANNOT BE AGREED UPON, USE THE FOLLOWING ALTERNATIVES:

Conversation — 1. *" Do you have an assistant who works very closely with you whom I might interview?"*

INSTRUCTION	IF THE RESPONSE IS NO, MOVE TO # 2. IF THE RESPONSE IS YES, OBTAIN THE ASSISTANT'S NAME AND ATTEMPT TO ESTABLISH THE INTERVIEW.
Conversation	2. *"Are you going to be in the Lexington, Frankfort or Louisville area in the near future? Perhaps we could arrange an interview here?"*
INSTRUCTION	A. IF THE RESPONSE IS NO, ASK THE FOLLOWING QUESTION:
Conversation	*"Well then, is there some other time when you would be available for an interview in your office?"*
INSTRUCTION	(1) IF THE RESPONSE IS NO, THANK INDIVIDUAL FOR HIS/HER TIME. MAKE NOTE OF THIS PART. (2) IF RESPONSE IS YES, ATTEMPT TO OBTAIN SOME TIMES THAT THE INDIVIDUAL COULD BE AVAILABLE AND EXPLAIN THAT ANOTHER MEMBER OF THE PROJECT STAFF WILL MAKE CONTACT WITH THE INDIVIDUAL.
CONVERSATION	*"We will have to make schedules mesh. I may have to call you again."*
INSTRUCTION	B. IF YES RESPONSE: (ATTEMPT TO ESTABLISH DATE AND LOCATION. E.G. COFFEE DUTCH TREAT LUNCHEON; AND/OR OTHER ALTERNATIVES). IF YOU CANNOT ESTABLISH TIME, MOVE TO ITEM A. (2)
INSTRUCTION	CLOSING REMARKS
Conversation	*"______________________, thank you for your time.* *Either I, or someone from our staff will look forward to seeing you on ________________ at ____________.*
INSTRUCTION	PROJECT EXPLANATION
Conversation	*"We are conducting a federally funded research project designed to study employment patterns in vocational education. Because you are involved in the process of hiring administrators for vocational education, we are anxious to interview you regarding employment polocies and practices. Your responses will be treated confidentially. The letter was to inform you of the study and to let you know that I would be contacting you to establish a time that I might interview you."*

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

April, 1979

Dear

This letter is to confirm my interview appointment with you at (time) in your office at the (location) on (date).

Ms. Pat Wilson made the appointment recently; however, I shall be the one to conduct the interview. I shall look forward to meeting with you at the above time and place. Thank you in advance.

Most cordially,

Interviewer

/so

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

Dear Administrator:

Thank you very much for your participation in our research study. Your response to our interview questions will be very helpful in determining the employment practices in vocational education in the state of Kentucky.

The interviewer left a form with you regarding the extent of female applicants for positions from January 1, 1978 through December 31, 1978. This was to be completed and returned to us. We have not yet received this information. Could you get this information to us as soon as possible? We have enclosed another form just in case the original one was misplaced.

Your participation and cooperation are greatly appreciated.

Sincerely yours,

Carolyn Litchfield, Ed.D.
Project Director

CL/so

Enclosure

AN EQUAL OPPORTUNITY UNIVERSITY

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

Dear Administrator:

Thank you very much for your participation in our research study. Your response to our interview questions will be very helpful in determining the employment practices in vocational education in the state of Kentucky.

Your participation and cooperation are greatly appreciated.

Sincerely yours,

Carolyn Litchfield, Ed.D.
Project Director

CL/so

APPENDIX J

TRAINING PROGRAM FOR INTERVIEWERS

PHASE IV

TRAINING SESSION FOR PROSPECTIVE INTERVIEWERS

March 17, 1979
College of Education
Dickey Hall

Faculty Lounge

Coffee . . . . 9:45 - 10:00

Room 29

Training Session: Part I . . . . 10:00 - 12:00

Introduction to Session
Interviewer Selection Process . . . . 10:00 - 10:15
Dr. Carolyn Litchfield

Historical Perspective and Overview of Project
Procedures to be Used in Employer Survey . . . . 10:15 - 10:50
Ms. Pat Wilson
Dr. Carolyn Litchfield

Break . . . . 10:50 - 11:00

Interview Techniques . . . . 11:00 - 12:00
Dr. Carolyn Litchfield

Faculty Lounge

Luncheon . . . . 12:00 - 1:00

Room 29

Training Session: Part II . . . . 1:00 - 4:00

Understanding the Interview Form . . . . 1:00 - 2:00
Dr. Carolyn Litchfield

Model Interview . . . . 2:00 - 3:00
Ms. Pat Wilson
Dr. Carl Lamar

Break . . . . 3:00 - 3:10

Question and Answer Session
Schedule Mock Interviews
Schedule Follow-Up Meeting . . . . 3:10 - 4:00
Dr. Carolyn Litchfield

APPENDIX K

COMMENTS REGARDING EMPLOYMENT POLICIES AND PRACTICES

PHASE IV

State Department of Education

1. It is a problem to get qualified people in vocational administration as the pay is not as good as in industry.

2. I do not feel there is a distinction between males and females who are qualified for a position.

3. When a position opens the best person is picked, not related to sex, creed, or color.

4. There is only token effort made for affirmative action. I don't believe in affirmative action because it's a trade-off of one form of discrimination for another. I don't feel guilty for socialization and the past. We should treat people as individuals and hire the best qualified.

5. There is a problem with equal employment in vocational education because of low salary, need for relocation, and the expense of moving. Many women have a problem with a dual job of a home and work.

6. I hope we are doing more than talk about equality. I think minorities should be encouraged more.

Regional Level

1. When recruiting, the majority of employees are trade and industrial. Until they solve problems of more women going to working areas, there will be problems in getting women in administration.

2. Interested in helping out in any type research for vocational education.

3. Good questions. Hope I was some help.

4. We try to be open. The first thing I tell people who come in is "I am not interested in politics," and we try to choose the best person for the job. I consider that important. I feel the more I know about an individual, the better I am able to make the decision on finding the best person for the job. I don't know who the political powers are. If the person does the job, they don't owe me anything personally. Operating an open organization and open climate causes the decisions to be made by the people who have to abide by them.

5. Don't believe we are biased and we try to employ the best person for the position regardless of who that person is. We do plan to increase the number of females in administrative positions.

6. Personally, I feel the way the state program works, we don't have any problems with minorities and females--equal opportunity. The problem is that we don't have the number of female applicants as we do males. I have really encouraged a number of females to become certified who I feel would be administratively qualified. Many limit their success because they prefer to remain in a teaching role.

7. Not much turnover. I have very few people, but the two hired in administration were males who have turned out very well--when you inherit people the way I have you have to cultivate them to your way of thinking; people you hire have a greater loyalty to you. I am about as prejudiced as any other normal person in my profession even though I don't want to be. I do think the females have to work harder to prove themselves in most cases--not for me but for other people and themselves.

State Vocational Schools

1. I think we, as male administrators, are going to have to be truthful in so far as the employment and advancement of females in administrative positions. We are going to have to encourage women more than we have. We are going to have to offer internship programs within the house. Many men feel women are alright in certain positions but when they are put in administrative positions they are a threat.

2. I don't agree with system we have today. I feel the responsibility for employment should be on the regional level. It now takes too long (8 weeks) to employ an applicant. I think there should be an annual contract.

3. We do not discriminate. If the female can do the job, fine.

4. This entire region has been run without any discrimination between women, blacks or any other creed since 1954. Everybody is considered and given the opportunity to apply for a position. I have no hang-ups. I feel the majority can do as well as any man in most positions, excluding some strenuous jobs. When the right one comes along, she will get the position as well as a man.

5. I really feel that we don't make any difference in people, and we have gone out of our way to solicit females for positions, and we have done our best to hire black people, but we don't have any. In Eastern Kentucky, it becomes rather difficult for women to seek non-traditional positions. We are making progress, but at this time, I think you will agree with me, women are just now emerging from the traditional female role. I think women have real ability to do whatever needs to be done. They can match men in anything except physical strength. They can pass men in most things.

Local School Systems

1. Goal is to try not to let sex, race, religion or any of those things be a factor in employing people or promoting them to administrative positions or any other thing considered promotion. I have two females I consider administrators and the fact that they are female didn't get them hired.

2. I feel that to fill our positions we are looking for people--not a man or woman necessarily and that ideally race or sex would not play a part in selecting.

3. The only complaint I have is when women who work alone in a building want extra protection. They are hired to do a job and that includes the risks. We don't have the money to hire special security.

4. Women should be encouraged to be prepared if an opening should happen. They must have teaching experience and a good record.

5. I have tried to increase minorities and women in the administrative positions in the last 10 years.

6. I've been here 20 years and have never seen any difference in men's and women's working relationships or positions.

University Level

1. As an administrator, I am concerned with how we can deal with the attitude problems regarding women. I want to select them carefully and support their work, same as any other administrator. Interested in finding a pool of applicants that includes women to select from. Women don't identify themselves as administrators Vocational education tends to place women in traditional fields.

2. We have equal treatment of condidates.

3. I really don't hire any vocational education administrators. My job is broader.

4. Vocational education is a small program in terms of people who are qualified and interested. It is pretty hard to prevent "good old boy" approaches. No matter what process and procedures you develop, you hire the people you want. Procedures, rules and legislation may have a whiplash approach.

5. I'm not sure what you are asking. If the question is are we complying with affirmative action, the answer is yes. Affirmative action is a good idea. I know of no instances where it is not taken into account.

6. I certainly encourage women to apply for any position. We make efforts so competent women are given an opportunity to apply.

7. I think we are very conscious of women in this school. We are making a concerted effort to eliminate sex bias.

8. I think that too often, employment practices have a practice of getting back to personalities. In getting top people, I think you have to be more objective and look at the jobs and people and get away from politics. In promotion, need a way of measuring performance and try to objecttvely look at the situation and the job and the administrative responsibilities.

9. Vocational education shouldn't feel they are being put upon. They are part of the system and treated in the same way as the rest of the systems. They should be concerned about affirmative action.

10. We have been cognitive toward role of women.

Community College Level

1. I firmly believe that you employ a person to perform a particular function. The sex of that person has little meaning or effect on what I say I look for: the ability to work with people, to organize, etc. These are things you find in men and women, black and whites. If you find that person, then hire them.
2. Try to follow procedures and policies provided over total University of Kentucky system. Have been ample and deliberate attempts to comply.
3. We are consciously striving to meet the affirmative action program requirements because we believe in them. We have to employ people on the basis of merit, and if we don't, we will try again.
4. Written policies, external control, government intervention have no effect on hiring practices.
5. Very concerned with doing the best job and don't give a damn about whether a male or female.
6. In college work, got to hire people related persons.
7. Employment practices consistent with guidelines. Trying hard to find more black people.
8. Don't distinguish between vocational education and general education employment.
9. This institution tries to keep equal balance of men and women. Women are encouraged.

APPENDIX L

INSTRUMENT PACKET

PHASE V

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

February 10, 1978

Dear

I am involved in a research project designed to study the selection process for administrators in vocational education. As an educational leader you are one of several administrators selected to participate in the study. Your involvement will require about twenty minutes of your time and will contribute much to the success of this research effort.

You will find attached: 1) a Background Data Form; 2) four fictional resumes; and 3) four Employment Rating Forms, one for each applicant. I am requesting your help by doing the following:

1. Complete the Background Data Form.
2. Read the first resume carefully, but only one time, and mark the Employment Rating Scale for the described applicant on the basis of your initial reaction to the resume. (Ignore the code numbers)
3. Rate the other applicants in the same manner, independently, without comparing applicants.
4. Return by February 20 in the enclosed envelope, which requires no postage.

You are being asked to screen the applicants. Obviously more information would be necessary if you were actually making a hiring decision. Please use your best judgement based on the information provided.

The questionnaires have been carefully coded to preserve the anonymity of respondents and to facilitate analysis of the data. Please be assured that your response will remain anonymous.

Thanks very much for your help.

Sincerely,

Sue Couch
Research Associate

AN EQUAL OPPORTUNITY UNIVERSITY

BACKGROUND DATA FORM

INSTRUCTIONS: Check (✓) the blank beside the number which indicates your status.

AGE

_____ 1. 20-30
_____ 2. 30-40
_____ 3. 40-50
_____ 4. 50-60
_____ 5. Over 60

SEX

_____ 1. Male
_____ 2. Female

TOTAL YEARS PROFESSIONAL EXPERIENCE IN VOCATIONAL EDUCATION

_____ 1. Less than 5 years
_____ 2. 5-10 years
_____ 3. 10-15 years
_____ 4. 15-20 years
_____ 5. more than 20 years

HIGHEST DEGREE HELD

_____ 1. Less than Bachelor's Degree
_____ 2. Bachelor's Degree
_____ 3. Master's Degree
_____ 4. Specialist (or Rank I)
_____ 5. Doctorate
_____ 6. Other _____________

POSITION TITLE

_____ 1. State Director
_____ 2. State Supervisor
_____ 3. Regional Director
_____ 4. Regional Coordinator
_____ 5. Vocational School Principal
_____ 6. Coordinator, Area Vocational Education Center
_____ 7. Local District Director
_____ 8. Local District Supervisor
_____ 9. Community College Administrator
_____ 10. Other _____________

VOCATIONAL PROGRAM AREA IN WHICH PROFESSIONAL PREPARATION WAS RECEIVED

_____ 1. Agriculture
_____ 2. Business and Office
_____ 3. Distributive Education
_____ 4. Health Occupations
_____ 5. Home Economics
_____ 6. Industrial Education
_____ 7. Other Vocational Program Area _____________
_____ 8. Preparation Outside Vocational Education _____________

RESUME 17

Personal Data	Carolyn A. Williams, age 29; married, one child
Education	M.S. from major state university; GPA: 3.20
	B.S. from regional university; GPA: 2.81
	Professional preparation in an approved vocational education curriculum
	Certification in Administration/Supervision
Employment Experience	3 years as vocational teacher at middle school level
	3 years as vocational teacher and head of department in large comprehensive high school
	1 year as graduate teaching assistant
Professional Involvement	Actively participates as member of 3 professional organizations
	Regularly attends state professional meetings
	Member, professional development committee, local school district
	Chairman, membership committee, district service area teachers' organization
	Legislative chairman, state professional organization
	Director, district conference for leaders of youth organizations
References	"is respected by colleagues"
(Abstracts from 5 letters of reference written by individuals who have knowledge of the applicant's professional competence)	"relates well to people"
	"outstanding teacher"
	"evidences leadership potential"
	"unconditionally recommend her"
	"demonstrates interest in improving herself professionally"

Note: Two sets of resumes were used, Sets A and B, identical except for gender of applicant.

RESUME 26

Personal Data	Robert F. Jackson, age 28; married, one child
Education	M.S. from major state university; GPA: 3.25
	B.S. from regional university; GPA: 2.75
	Professional preparation in an approved vocational education curriculum
	Certification in administration/supervision
Employment Experience	2 years as vocational teacher in junior high school
	3 years as vocational teacher and department head in large comprehensive high school
	1 year as graduate teaching assistant
Professional Involvement	Active member of 3 professional organizations
	Vice President, District program area teachers' organization
	Regional advisor, vocational student organization
	Attends state professional meetings regularly
References	"an excellent teacher"
(Abstracts from 5 letters of reference written by individuals who have knowledge of the applicant's professional competence)	"demonstrates potential for leadership"
	"is respected as an educator"
	"shows interest in his own professional growth"
	"works well with people"
	"recommend him without reservation"

RESUME 392

Personal Data

Janet K. Matthews, age 36, married, two children

Education

Ed.D. from recognized out-of-state university (vocational education major)

M.S. from major state university (educational administration major)

B.S. from regional university (major in approved vocational education program area)

WXYZ Fellowship during 2 years of doctoral study

Graduate GPA: 3.92; Undergraduate GPA: 3.45

Employment Experience

3 years as vocational teacher in senior high school

4 years as vocational teacher at post-secondary/adult level

3 years as local district coordinator of vocational education programs

2 years as state supervisor in vocational program area

1 year as graduate research assistant

Professional Involvement

Membership and active involvement in 4 professional organizations

Regular participant in state and national professional meetings

Vice president and program area representative, state vocational association

Consultant, state workshop for urban vocational student organization advisers

Editor, curriculum materials for competency-based programs

Delegate to annual meeting, national professional organization

Major speaker, state program area teachers' conference

References

(Abstracts from 5 letters of reference written by individuals who have knowledge of the applicant's professional competence)

"proven record as outstanding teacher and administrator"

"strong motivation toward professional growth"

"is recognized as authority in her field"

"demonstrates personal and professional qualities essential for competent leadership"

"strongly recommend her"

"has reputation for academic excellence"

RESUME 458

Personal Data	James R. Collins, age 35; married, two children
Education	Ed.D. in Vocational Education (recognized out-of-state university)
	M.S. in Educational Administration (major state university)
	B.S. in approved vocational education program area (regional university)
	2 years as ABCD fellow during doctoral study
	Graduate GPA: 3.97; Undergraduate GPA: 3.49
Employment Experience	2 years as vocational teacher at secondary level
	4 years as vocational teacher in community college
	3 years as vocational education coordinator in local school district
	2 years as state program area supervisor
	1 year as graduate research assistant
Professional Involvement	Active member of 4 professional organizations
	Curriculum writer, local school district
	President, state program area teachers' organization
	Major speaker, state vocational student organization conference
	Editor, state professional organization newsletter
	Delegate, national professional organization convention
	Participates regularly in state and national professional meetings
References (Abstracts from 5 letters of reference written by individuals who have knowledge of the applicant's professional competence)	"highly recommend him"
	"impressive academic record"
	"has reputation for excellence as a teacher and as an administrator"
	"is respected as highly competent in his field"
	"strongly motivated toward professional improvement"
	"demonstrates personal qualities and organizational capabilities needed for effective leadership"

EMPLOYMENT RATING SCALE

Instructions: Assume that the person whose resume you have just read is an applicant for an administrative or supervisory position in vocational education. Assume that it is your responsibility to evaluate this applicant on the basis of the information provided in the resume. Please base your evaluation on your initial reaction, without re-reading the resume or comparing applicants. Circle the rating for this applicant on each item. 1 represents a low score; 5 represents a high score. Remember that you are screening applicants, not making a hiring decision.

Item	Rating				
	Low				High
Educational background	1	2	3	4	5
Employment experience	1	2	3	4	5
Professional activities	1	2	3	4	5
Written recommendations	1	2	3	4	5
Leadership potential	1	2	3	4	5
Interpersonal skills	1	2	3	4	5
Career commitment	1	2	3	4	5

Additional comments:

Note: Employment Rating Scale was used with each resume.

APPENDIX M

FOLLOW-UP LETTERS

PHASE V

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

February 24, 1978

Dear

Several days ago, you should have received a letter from me requesting your help with a research project regarding the selection process for administrators in vocational education. As yet, I have not received your response. A limited number of educational leaders were selected to participate in this study and a response from every person is important to its success.

For your convenience, I am enclosing a second questionnaire. Would you take just a few minutes to:

1. Complete the Background Data Form.
2. Read the first resume carefully, but only one time, and mark the Employment Rating Scale for the described applicant on the basis of your initial reaction to the resume. (Ignore the code numbers)
3. Read the other applicants in the same manner, independently, without comparing applicants.
4. Return to me promptly in the enclosed envelope, which requires no postage.

If your response has been mailed, please disregard this request. Thank you again for your help.

Sincerely,

Sue Couch
Research Associate

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

March 7, 1978

Dear

A few weeks ago, you should have received a request from me asking for your help with a research project dealing with the selection process for vocational administrators. As yet, I have not received your response. I know that your time is very valuable, but I would greatly appreciate it if you would take a few minutes to complete the questionnaire and return it to me. Your response is very important to the success of this research effort.

If your response has been mailed, please disregard this reminder. Thanks again for your help.

Sincerely,

Sue Couch
Research Associate

APPENDIX N

DEMOGRAPHIC DATA REGARDING ADMINISTRATORS

PHASE V

TABLE 77

SUMMARY OF DEMONGRAPHIC CHARACTERISTICS OF VOCATIONAL ADMINISTRATORS
(Respondents Phase V)

		Frequency	Percent
Age	Under 40	29	29.3
	40-50	41	41.4
	Over 50	29	29.3
	Total	99	100.0
Sex	Male	92	92.9
	Female	7	7.1
	Total	99	100.0
Total Years Professional Experience in Vocational Education	Less than 10 years	35	35.3
	10-20 years	45	45.5
	More than 20 years	19	19.2
	Total	99	100.0
Vocational Program Area in Which Professional Preparation Was Received	Agriculture	13	13.1
	Business and office	8	8.1
	Distributive education	4	4.0
	Health occupations	2	2.0
	Home economics	2	2.0
	Industrial education	22	22.2
	Other vocational program area	7	7.1
	Area outside vocational education	41	41.4
	Total	99	100.0
Highest degree held	Bachelors degree or less	12	12.1
	Masters degree	36	36.4
	Specialist	25	25.3
	Doctorate	26	26.3
	Total	99	100.0
Position Title	Director or Supervisor at state level	27	27.3
	Regional director	10	10.1
	Vocational school principal	21	21.2
	Local district director or supervisor	5	5.0
	Administrator in community college	20	20.2
	Other	16	16.1
	Total	99	100.0

APPENDIX O

MEAN RATINGS ON VARIABLES
FOR
AVERAGE AND SUPERIOR APPLICANTS

TABLE 78

MEAN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS, BY RESPONDENTS UNDER 40 YEARS OF AGE

Variable	Average Qualifications		Superior Qualifications	
	Female	Male	Female	Male
Educational background	3.8621	3.8621	4.8621	4.8966
Employment experience	3.8621	3.8621	4.8276	4.8621
Professional Activities	4.1034	4.1379	4.5517	4.5862
Written Recommendations	4.1724	4.1724	4.4828	4.5517
Leadership Potential	4.0000	4.0345	4.5862	4.6207
Interpersonal Skills	4.1724	3.8966	4.2759	4.2759
Career Commitment	4.2759	4.2759	4.6897	4.7586
Overall Rating	28.4483	28.2414	32.2758	32.5517

TABLE 79

MEAN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS, BY RESPONDENTS 40-50 YEARS OF AGE

Variable	Average Qualifications		Superior Qualifications	
	Female	Male	Female	Male
Educational background	3.6829	3.7317	4.7805	4.8049
Employment experience	3.3171	3.3415	4.1951	4.3902
Professional activities	3.7805	3.8537	4.5122	4.4878
Written recommendations	3.9756	4.0244	4.5854	4.6585
Leadership potential	3.6829	3.7805	4.4634	4.5366
Interpersonal skills	3.5366	3.5854	4.2195	4.1220
Career commitment	3.8780	3.8537	4.5366	4.4878
Overall rating	25.8537	26.1707	31.2927	31.4878

TABLE 80

MEAN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS, BY RESPONDENTS OVER 50 YEARS OF AGE

Variable	Average Qualifications		Superior Qualifications	
	Female	Male	Female	Male
Educational background	3.7586	3.6207	4.6552	4.6552
Employment experience	3.5172	3.5172	4.3103	4.3448
Professional activities	3.7241	3.7931	4.3448	4.4483
Written recommendations	4.0345	3.9655	4.4138	4.3793
Leadership potential	3.8621	3.6897	4.3448	4.3448
Interpersonal skills	3.7586	3.6897	4.1379	4.2069
Career commitment	3.9655	3.9310	4.4483	4.4483
Overall rating	26.6207	26.2069	30.6552	30.8276

TABLE 81

MEAN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS, BY RESPONDENTS WITH LESS THAN 10 YEARS EXPERIENCE IN VOCATIONAL EDUCATION

Variable	Average Applicants		Superior Applicants	
	Female	Male	Female	Male
Educational background	3.7143	3.7429	4.8000	4.8571
Employment experience	3.6286	3.6000	4.6286	4.6857
Professional activities	3.8571	4.0000	4.6286	4.5143
Written recommendations	4.0286	4.0286	4.6000	4.6000
Leadership Potential	3.8286	3.8000	4.5429	4.5143
Interpersonal skills	3.8857	3.7429	4.2286	4.2286
Career commitment	4.0286	4.0286	4.6286	4.6000
Overall rating	26.9714	26.9429	32.0571	32.0000

TABLE 82

MEAN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS, BY RESPONDENTS WITH 10-20 YEARS EXPERIENCE IN VOCATIONAL EDUCATION

Variable	Average Qualifications		Superior Qualifications	
	Female	Male	Female	Male
Educational background	3.7333	3.7556	4.8000	4.7556
Employment experience	3.5111	3.5556	4.3111	4.4222
Professional activities	3.9778	3.9333	4.4889	4.5556
Written recommendations	4.0667	4.0667	4.4444	4.5556
Leadership potential	3.8444	3.9556	4.4889	4.5333
Interpersonal skills	3.7556	3.7556	4.1778	4.1556
Career commitment	4.1111	4.1333	4.5778	4.6000
Overall rating	27.0000	27.1555	31.2889	31.5778

TABLE 83

MEAN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS, BY RESPONDENTS WITH MORE THAN 20 YEARS EXPERIENCE IN VOCATIONAL EDUCATION

Variable	Average Applicants		Superior Applicants	
	Female	Male	Female	Male
Educational background	3.8947	3.6842	4.6316	4.7368
Employment experience	3.4211	3.4211	4.2632	4.4211
Professional activities	3.5789	3.7368	4.1579	4.3684
Written recommendations	4.0526	4.0526	4.4737	4.4211
Leadership potential	3.7895	3.5789	4.2632	4.4211
Interpersonal skills	3.6842	3.5263	4.2632	4.2105
Career commitment	3.7895	3.6316	4.3684	4.3684
Overall rating	26.2105	25.6316	30.4211	30.9474

TABLE 84

MEAN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS, BY RESPONDENTS WITH PROFESSIONAL PREPARATION IN VOCATIONAL EDUCATION

Variable	Average Applicants		Superior Applicants	
	Female	Male	Female	Male
Educational background	3.9483	3.8793	4.7586	4.7931
Employment experience	3.5690	3.6034	4.3621	4.4483
Professional activities	3.9138	3.9138	4.3966	4.4655
Written recommendations	4.0832	4.1724	4.4828	4.5517
Leadership potential	3.8966	3.9310	4.3966	4.5172
Interpersonal skills	3.7759	3.7241	4.1724	4.1379
Career commitment	4.0172	4.0345	4.5000	4.4828
Overall rating	27.2069	27.2586	31.0690	31.3965

TABLE 85

MEAN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS, BY RESPONDENTS WITH PROFESSIONAL PREPARATION OUTSIDE VOCATIONAL EDUCATION

Variable	Average Applicants		Superior Applicants	
	Female	Male	Female	Male
Educational background	3.4878	3.5366	4.7805	4.7805
Employment experience	3.4878	3.4634	4.4878	4.6098
Professional activities	3.7805	3.9268	4.5854	4.5610
Written recommendations	4.0000	3.8780	4.5366	4.5366
Leadership potential	3.7317	3.6829	4.5610	4.4878
Interpersonal skills	3.8049	3.6829	4.7683	4.2683
Career commitment	4.0244	3.9512	4.6341	4.6585
Overall rating	26.3171	26.1219	31.8537	31.9024

TABLE 86

MEAN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS, BY RESPONDENTS WITH A MASTERS DEGREE OR LESS

Variable	Average Applicants		Superior Applicants	
	Female	Male	Female	Male
Educational background	3.9167	3.9375	4.7292	4.7500
Employment experience	3.5625	3.6250	4.3958	4.4375
Professional activities	3.8750	4.0000	4.3542	4.4583
Written recommendations	4.0417	4.0625	4.4792	4.5208
Leadership potential	3.8542	3.9167	4.3958	4.4792
Interpersonal skills	3.8333	3.7708	4.2292	4.2083
Career commitment	3.9583	3.9583	4.3958	4.4167
Overall rating	27.0417	27.2708	30.9792	31.2708

TABLE 87

MEAN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS, BY RESPONDENTS WITH A SPECIALIST OR DOCTORATE

Variable	Average Applicants		Superior Applicants	
	Female	Male	Female	Male
Educational background	3.6078	3.5490	4.8039	4.8235
Employment experience	3.5098	3.4706	4.4314	4.5882
Professional activities	3.8431	3.8431	4.5882	4.5490
Written recommendations	4.0588	4.0392	4.5294	4.5686
Leadership potential	3.8039	3.7451	4.5294	4.5294
Interpersonal skills	3.7451	3.6471	4.1961	4.1765
Career commitment	4.0784	4.0392	4.7059	4.6863
Overall rating	26.6470	26.3333	31.7843	31.9216

TABLE 88

MEAN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS, BY ADMINISTRATORS AT THE STATE LEVEL

Variable	Average Applicants		Superior Applicants	
	Female	Male	Female	Male
Educational background	3.9259	3.9259	4.7778	4.7778
Employment experience	3.5556	3.7407	4.4444	4.5556
Professional activities	3.9259	4.1481	4.4074	4.5185
Written recommendations	4.1481	4.1111	4.5185	4.5556
Leadership potential	4.0370	4.0370	4.4815	4.5185
Interpersonal skills	3.6296	3.6667	4.0370	4.0741
Career commitment	4.0741	4.1481	4.5926	4.5556
Overall rating	27.2963	27.7778	31.2592	31.5555

TABLE 89

MEAN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS, BY REGIONAL AND LOCAL ADMINISTRATORS

Variable	Average Qualifications		Superior Qualifications	
	Female	Male	Female	Male
Educational background	3.8600	3.8600	4.7600	4.7600
Employment experience	3.5200	3.4600	4.3200	4.3800
Professional activities	3.9200	3.9000	4.5000	4.5200
Written recommendations	4.0200	4.0600	4.4800	4.5200
Leadership potential	3.7600	3.8000	4.4000	4.4800
Interpersonal skills	3.8600	3.7200	4.2800	4.2600
Career commitment	4.0000	3.9200	4.5400	4.4800
Overall rating	26.9400	26.7200	31.2800	31.4000

TABLE 90

MEAN RATINGS ON VARIABLES FOR AVERAGE AND SUPERIOR APPLICANTS, BY ADMINISTRATORS IN THE COMMUNITY COLLEGE SYSTEM

Variable	Average Qualifications Female	Average Qualifications Male	Superior Qualifications Female	Superior Qualifications Male
Educational background	3.4000	3.3500	4.8000	4.8500
Employment experience	3.5000	3.5000	4.6000	4.7500
Professional activities	3.7000	3.7500	4.5500	4.5000
Written recommendations	4.0500	4.0000	4.5000	4.5500
Leadership potential	3.7500	3.6500	4.6000	4.5000
Interpersonal skills	3.7500	3.6500	4.2500	4.2000
Career commitment	4.0000	4.0000	4.5500	4.7500
Overall rating	26.1500	25.9000	31.8500	32.1000